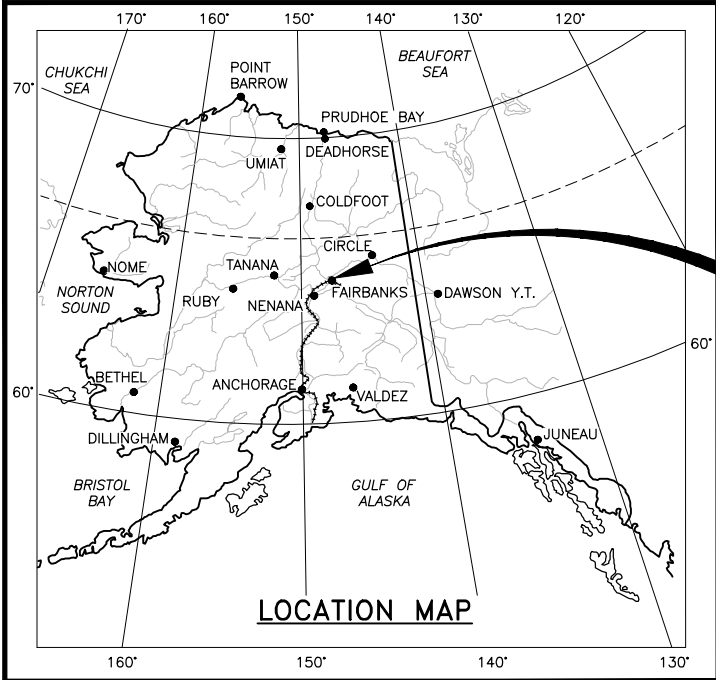


HWYS TITLE SHEET
Z:\PROJECTS\00477_old rich intersections\DWGS\C\Sheets\00158_A1_TITLE-A1 Tue, Aug/11/20 12:39pm



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT

0620010/NFHWY00158

OLD RICHARDSON HIGHWAY INTERSECTION IMPROVEMENTS

GRADING, DRAINAGE, PAVING, SIGNING & STRIPING

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	A1	43
CDS ROUTE: 188855			MILEPOINT: 0.591 TO 0.638				
CDS ROUTE: 188858			MILEPOINT: 0.733 TO 0.762				

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2-A4	LEGEND, GENERAL NOTES, & SHEET LAYOUT
B1	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1-D2	SUMMARIES
E1	DEMOLITION PLAN
E2-E4	DETAILS
G1-G2	GRADING PLANS
H1-H2	SIGNING, STRIPING, AND ILLUMINATION
H3-H4	SIGN SUMMARIES
H5-H14	DETAILS
Q1-Q3	ESCP
T1-T3	TRAFFIC CONTROL PLANS (and/or DEVICES)
V1-V9	ALASKA STANDARD PLANS

DESIGN DESIGNATIONS

	5TH AVE	8TH AVE
ADT (2017)	2,900	900
ADT (2040)	4,100	1,200
DHV	370	220
PERCENT TRUCKS (T)	5%	13%
DIRECTIONAL SPLIT (D)	45/55	55/45
DESIGN SPEED (V)	25 MPH	20 MPH
DESIGN EAL'S (2040)	608,082	402,161

PROJECT SUMMARY

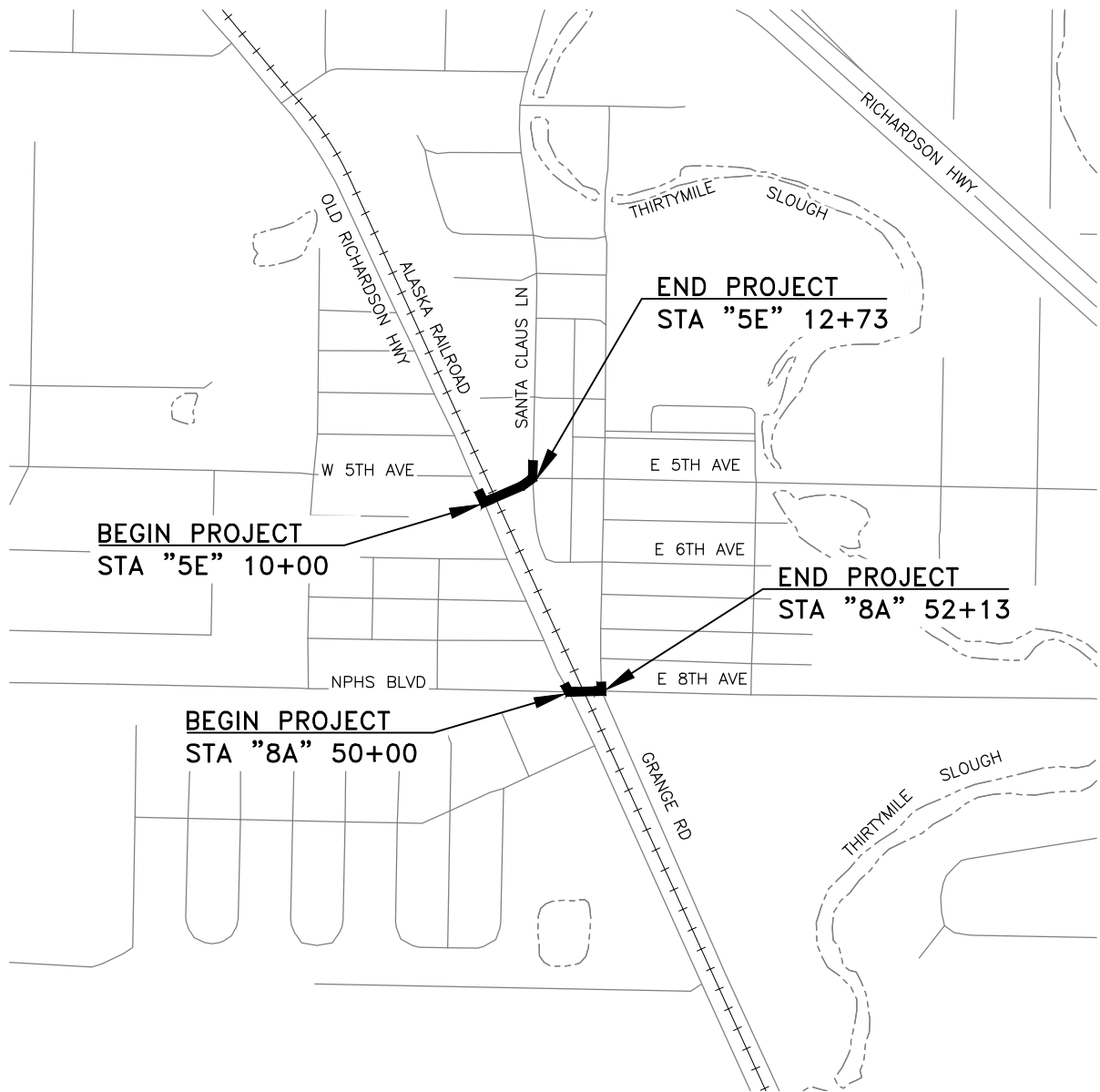
WIDTH OF PAVEMENT	VARIABLE
LENGTH OF GRADING	475'
LENGTH OF PAVING	475'
LENGTH OF PROJECT	475'

JOHN NETARDUS, PE, DOT&PF PROJECT MANAGER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED BY: _____ DATE _____
Sarah E. Schacher, P.E.
Preconstruction Engineer, Northern Region

ACCEPTED FOR CONSTRUCTION: _____ DATE _____
Ryan F. Anderson, P.E.
Regional Director, Northern Region



VICINITY MAP
NTS

		NO.		DATE		REVISION		STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
								ALASKA	0620010/NFHWY00158	2020	A2	A4

		EXISTING		PROPOSED	
BLM MONUMENT		SANITARY SEWER (FLOW DIRECTION →)	→→→SS→	→→→SS→	
GLO MONUMENT		FUEL LINE	→→→O→	→→→O→	
USC&GS MONUMENT		GAS LINE	→→→G→	→→→G→	
PRIMARY MONUMENT		WATER LINE	→→→W→	→→→W→	
CENTERLINE MONUMENT IN CASING		METER, VALVE, FIRE HYDRANT	→→→W→	→→→W→	
PRIMARY R.O.W. MONUMENT		EXISTING STORM DRAIN (FLOW DIRECTION →)	→→→SD→		
BEARING OBJECT		PROPOSED STORM DRAIN			
MISCELLANEOUS MONUMENT					
LINE OF SIGHT MONUMENT		FIBER OPTIC LINE	----FO----		
CONCRETE R.O.W. MONUMENT		DIRECT BURIAL TELEPHONE CABLE	----T----	----T----	
BENCHMARK		DIRECT BURIAL ELECTRIC CABLE	----E----	----E----	
REBAR AND CAP		ELECTRIC LINE (OVERHEAD)	-----	-----	
REBAR		POWER POLE LINE	--[]--	--[]--	
IRON PIPE		JOINT USE POWER & TELEPHONE	--[]--	--[]--	
PK NAIL		TELEPHONE POLE LINE	--○--	--○--	
SPIKE		POLE ANCHOR			
HUB AND TACK		STUB POLE (POWER OR TELEPHONE)			
CONSTRUCTION CENTERLINE		TELEPHONE DUCT	==T==	==T==	
MISCELLANEOUS CENTERLINE		TELEPHONE PEDESTAL			
STATION EQUATION		ELECTRICAL PEDESTAL			
PROJECT RIGHT-OF-WAY LINE		BURIED CABLE MARKER			
EXISTING RIGHT-OF-WAY LINE		PIPELINE MARKER OR VALVE			
ARRC RIGHT-OF-WAY LINE		CATCH BASIN OR DROP INLET			
DOT&PF/ARRC SHARED RIGHT-OF-WAY LINE		MANHOLE			
EXISTING PROPERTY LINE		SANITARY SEWER CLEAN OUT			
CONTROLLED ACCESS LINE					
UTILITY EASEMENT LINE					
TEMPORARY EASEMENT LINE (TCP OR TCE)					
ACCESS OR SECTION LINE EASEMENT					
PROPOSED CUT SLOPE LIMIT					
PROPOSED FILL SLOPE LIMIT					
SECTION LINE					
1/4 SECTION LINE					
1/16 SECTION LINE					
TOWNSHIP & RANGE LINE					

		EXISTING		PROPOSED	
ROADWAY/PAVEMENT EDGE					
HOT MIX ASPHALT SURFACE					
CONCRETE SURFACE					
FENCE					
CURB AND GUTTER					
DETECTABLE WARNINGS					
GUARDRAIL					
CULVERT PIPE					
SIGN					
MAILBOX					
RAILROAD TRACKS					
RAILROAD DEVICES					
RAILROAD CROSSING PAD					
TREE LINE					
WATER BOUNDARY					
ORDINARY HIGH WATER LINE					
FLOW CENTERLINE					
FLOW DIRECTION					
WETLANDS					
EXISTING BUILDINGS					
POST OR BOLLARD					
WELL OR MONITORING WELL					
SEPTIC PIPE					
FUEL TANK FILL PIPE/VENT					
SATELLITE DISH					
TEST HOLE					
CONIFER TREE					
DECIDUOUS TREE					

		EXISTING		PROPOSED	
JUNCTION BOX, TYPE IA					
JUNCTION BOX, TYPE II					
SIGNAL CONTROLLER					
LOAD CENTER					
LUMINAIRE					
RIGID METAL CONDUIT					

H = HOUSE
G = GARAGE
M = MERCHANT/STORE
B = BARN
S = SHED
P = PRIVY
SS = SERVICE STATION
W = WAREHOUSE

LEGEND

STATE OF ALASKA
49TH
William A. Webb
CE-12023
REGISTERED PROFESSIONAL ENGINEER
5/28/2021

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	A3	A4

LIST OF ABBREVIATIONS/SYMBOLS

AC	ASPHALT CONCRETE	MMA	METHYL METHACRYLATE
ADA	AMERICANS WITH DISABILITIES REGULATIONS	MPH	MILES PER HOUR
ADEC OR DEC	ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION	MTG. HT.	MOUNTING HEIGHT
ADT	AVERAGE DAILY TRAFFIC	N	NORTH, NORTHING
AH	AHEAD	N/A	NOT APPLICABLE
APPROX.	APPROXIMATE	NE	NORTHEAST
ARRC	ALASKA RAILROAD CORPORATION	N.I.C.	NOT IN CONTRACT
ARR	ALASKA RAILROAD	NO. OR #	NUMBER
ATB	ASPHALT TREATED BASE COURSE	NPS	NOMINAL PIPE SIZE
&	AND	NTS OR N.T.S	NOT TO SCALE
BMP	BEST MANAGEMENT PRACTICE	NW	NORTHWEST
BP	BACK OF PATHWAY	OC OR O.C.	ON CENTER
CC	CURB CUT	O.D.	OUTSIDE DIAMETER
C&G	CURB AND GUTTER	PC	POINT OF CURVATURE
CF	CUBIC FOOT	PCC	POINT OF COMPOUND CURVATURE
CGP	CONSTRUCTION GENERAL PERMIT	EX.	PERMANENT
€	CENTERLINE	PI	POINT OF INTERSECTION
D	DEGREE OF CURVATURE, DISTRIBUTION OF TRAFFIC, DIAMETER	POC	POINT OF CURVE
Δ	DELTA ANGLE	PRC	POINT OF REVERSE CURVATURE
DESC	DESCRIPTION	PST	PERFORATED STEEL TUBE
DHV	DESIGN HOURLY VOLUME	PT OR P.T.	POINT OF TANGENCY OR POINT
DIA	DIAMETER	R	RADIUS OF CURVE
DIR.	DIRECTION	RECP	ROLLED EROSION CONTROL PRODUCT
DOT&PF	DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	REQ'D	REQUIRED
DWT	DETECTABLE WARNING TILE	RMC	RIGID METAL CONDUIT
E	EAST, EASTING	ROW OR R/W	RIGHT-OF-WAY
EA	EACH	RT	RIGHT
EC	END OF CURB	S	SOUTH
ED	END DRIVEWAY	SE	SOUTHEAST
E.G.	FOR EXAMPLE	SF	SQUARE FOOT
EP	EDGE OF PAVEMENT	SH.	SHOULDER
ELEV	ELEVATION	STA	STATION
ESAL	EQUIVALENT SINGLE AXLE LOAD	STD. DWG.	STANDARD PLAN
ESCP	EROSION AND SEDIMENT CONTROL PLAN	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
ETC.	ET CETERA	SY	SQUARE YARD
EX	EXISTING	T	TANGENT DISTANCE, HEAVY VEHICLE PERCENTAGE
°F	DEGREES FAHRENHEIT	TEMP	TEMPORARY
FT OR '	FOOT	TERM TRANS	C&G TERMINATION TRANSITION
GA	GAUGE	TOC	TOP OF CASTING
GALV.	GALVANIZED	TS	TUBE STEEL
GB	GRADE BREAK	TYP	TYPICAL
GP	GRADE POINT	UG	UNDERGROUND
H	HORIZONTAL	UGE	UNDERGROUND ELECTRIC
HMA	HOT MIX ASPHALT	USACE	UNITED STATES ARMY CORP OF ENGINEERS
HMCP	HAZARDOUS MATERIAL CONTROL PLAN	USFWS	UNITED STATES FISH AND WILDLIFE SERVICE
IN OR "	INCH	V	DESIGN SPEED/VERTICAL
LBS	POUNDS	VMS	VISUAL MESSAGE SIGN
LF	LINEAR FEET	PVI	POINT OF VERTICAL INTERSECTION
LT	LEFT	W	WEST, WATER
MAX	MAXIMUM	W/	WITH
ME	MATCH EXISTING	WWM	WELDED WIRE MESH
MIN	MINIMUM		

GENERAL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR PROVIDING THEIR OWN STAGING AREA.
- PROTECT ALL EXISTING INFRASTRUCTURE FROM DAMAGE UNLESS OTHERWISE NOTED.
- TIME VEGETATION CLEARING TO COMPLY WITH THE MIGRATORY BIRD ACT.
- SAWCUT TO THE FULL DEPTH OF EXISTING ASPHALT, ALL MATCH LINES WHERE NEW CONSTRUCTION ABUTS EXISTING ASPHALT PAVEMENT. APPLY STE-1 ASPHALT FOR TACK COAT ON THE VERTICAL FACE OF ALL SAW CUT ASPHALT.
- SAWCUT TO THE FULL DEPTH OF EXISTING CONCRETE (SIDEWALK, CURB AND GUTTER, DRIVEWAY, ETC.) AT THE NEAREST JOINT AT OR BEYOND MATCH LIMITS OR AS DIRECTED BY THE ENGINEER.
- APPLY 4-INCHES OF TOPSOIL AND SEED TO ALL AREAS DISTURBED AND NOT OTHERWISE IMPROVED.
- TO MEET PROVISIONS OF THE CGP, SEEDING MAY REQUIRE MULTIPLE MOBILIZATIONS. ALL MOBILIZATIONS REQUIRED TO MEET THE CGP ARE SUBSIDIARY TO PAY ITEM 641.0003.0000.
- ALL WORK SHALL BE CONTAINED WITHIN THE ROW AND ARRC PERMIT LIMITS.
- WORK WILL BE IN ARRC ROW ACCORDING TO AGREEMENT/PERMIT. COORDINATION WITH THE ARRC WILL BE REQUIRED.
- THE CITY OF NORTH POLE NOISE ORDINANCE (80.40.050) WILL APPLY TO THE CONTRACTOR'S ACTIVITIES WITHIN THE CITY OF NORTH POLE. USE OF EQUIPMENT IS RESTRICTED BETWEEN 11 PM AND 7 AM. CONTRACTOR SHALL COMPLY WITH NOISE ORDINANCE OR OBTAIN PERMIT FOR WORKING DURING QUIET HOURS. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THIS LAW, SCHEDULING THE PROJECT WORK ACCORDINGLY, AND ANY COSTS INCURRED FOR VIOLATIONS.

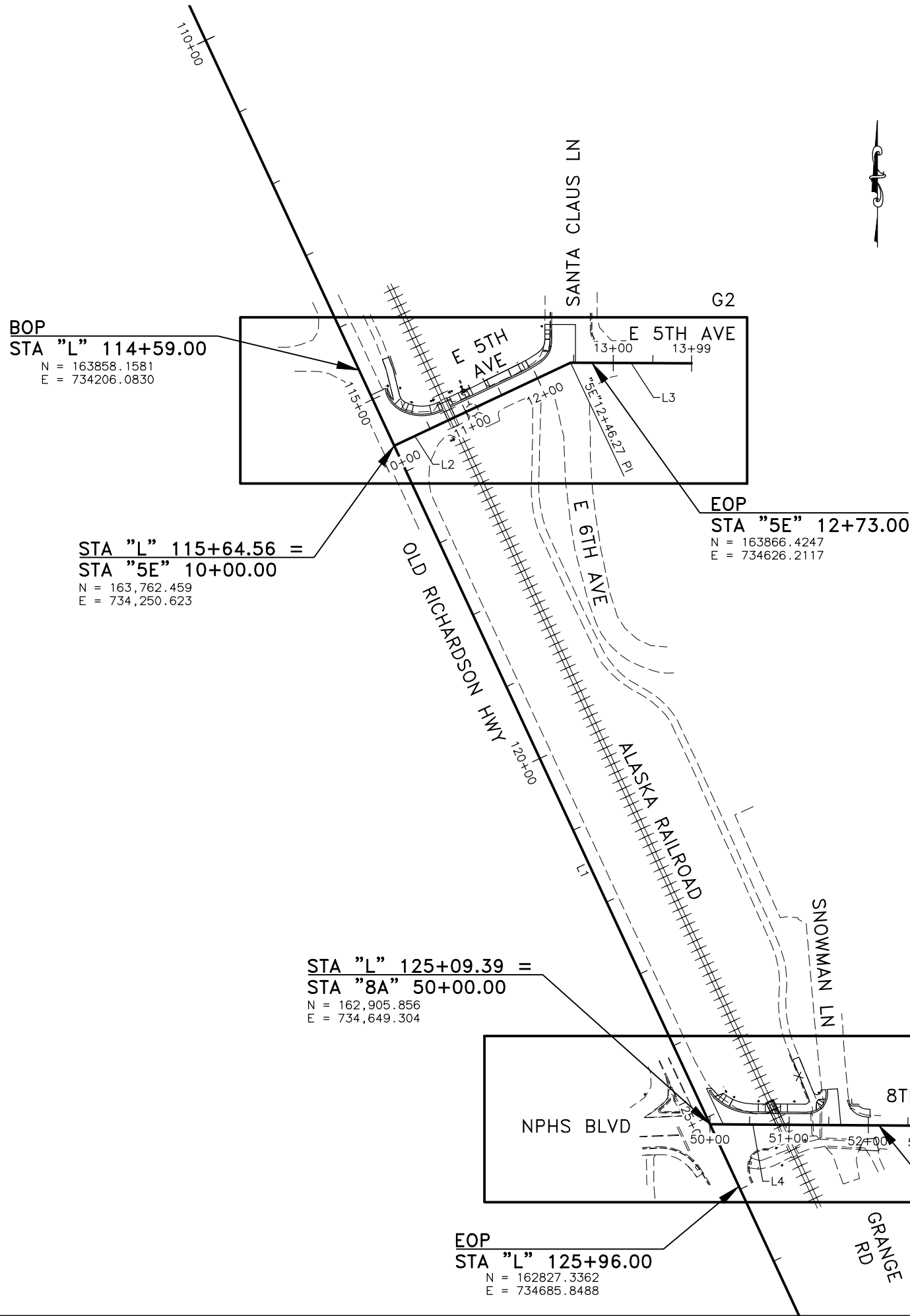
GENERAL UTILITY NOTES:

- BURIED AND OVERHEAD UTILITIES EXIST THROUGHOUT THE PROJECT CORRIDOR. LOCATIONS (HORIZONTALLY AND VERTICALLY) DEPICTED FOR THE UTILITIES AND OTHER EXISTING FEATURES ARE APPROXIMATE. SOME UTILITIES HAVE BEEN LOCATED FROM RECORD DRAWINGS AND UTILITY COMPANY LOCATES.
- LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. SEE SECTION 651 OF THE SPECIAL PROVISIONS FOR UTILITY COMPANY CONTACT INFORMATION AND ADDITIONAL REQUIREMENTS.
- MILITARY COMMUNICATION LINE IS NOT SHOWN ON THE PLANS AND MAY EXIST WITHIN THE PROJECT AREA. CONTACT EIELSON AIRFORCE BASE FOR UTILITY INFORMATION PRIOR TO WORK OPERATIONS.
- WORK IN CLOSE PROXIMITY TO UNDERGROUND AND OVERHEAD ELECTRICAL SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL STATUTES, CODES AND GUIDELINES AND THE ELECTRICAL FACILITY CLEARANCE REQUIREMENTS OF THE GOVERNING UTILITY.
- HAND DIG WITHIN TWO FEET OF BURIED UTILITIES.
- SUPPORT AND PROTECT UNDERGROUND UTILITIES, CONDUITS, AND STRUCTURES NOT SCHEDULED FOR DEMOLITION OR ABANDONMENT.
- PROTECT, OR REMOVE AND REPLACE IN SAME LOCATION, EXISTING MARKER POSTS FOR UTILITIES DISTURBED DURING CONSTRUCTION.

ABBREVIATIONS AND
GENERAL NOTES



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	A4	A4



PROJECT CONTROL NOTES

SEE RECORD OF SURVEY OLD RICHARDSON HIGHWAY
INTERSECTION NFHWY00158/620010 DATED AUGUST 18, 2019
FOR SURVEY CONTROL INFORMATION.

ALIGNMENT DESIGNATION

"L" OLD RICHARDSON HIGHWAY
"8A" 8TH AVENUE
"E5" 5TH AVENUE

DESIGN ALIGNMENT – "L"

No.	STATION START	START COORDINATE	END STATION	END COORDINATE	BEARING	DISTANCE
L1	105+10.18	N 164718.3731 E 733805.7211	151+78.30	N 160486.1871 E 735775.4681	S24°57'30"E	4668.12'

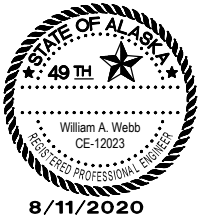
DESIGN ALIGNMENT – "5E"

No.	STATION START	START COORDINATE	END STATION	END COORDINATE	BEARING	DISTANCE
L2	10+00.00	N 163762.4591 E 734250.6233	12+46.27	N 163867.3315 E 734473.4426	N64°47'44"E	246.27'
L3	12+46.27	N 163867.3315 E 734473.4426	13+99.00	N 163866.4249 E 734626.1745	S89°39'36"E	152.73'

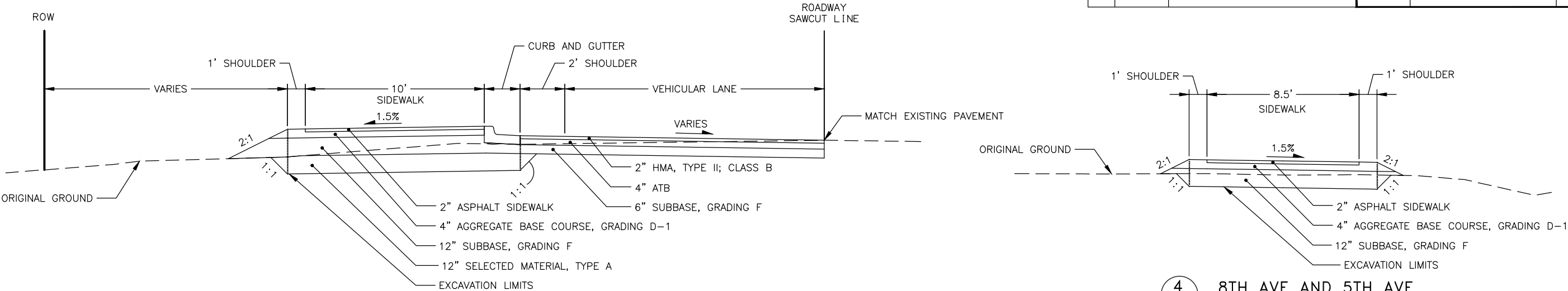
DESIGN ALIGNMENT – "8A"

No.	STATION START	START COORDINATE	END STATION	END COORDINATE	BEARING	DISTANCE
L4	50+00.00	N 162905.8561 E 734649.3041	52+75.00	N 162904.0735 E 734924.2983	S89°37'43"E	275.00'

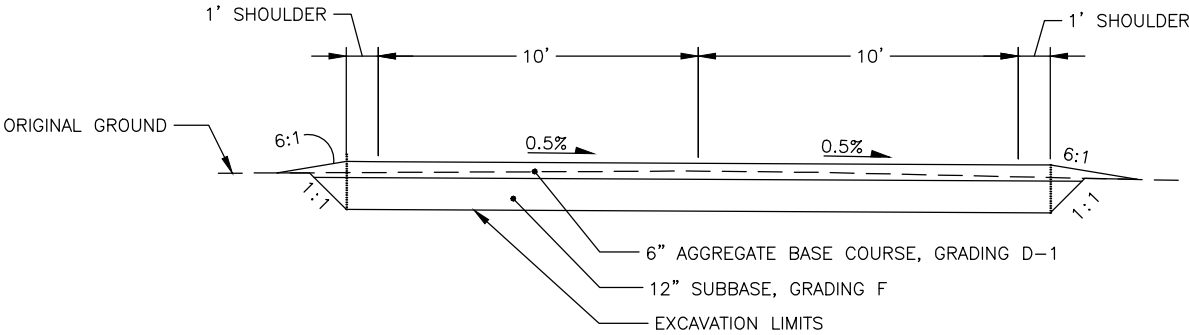
SHEET LAYOUT



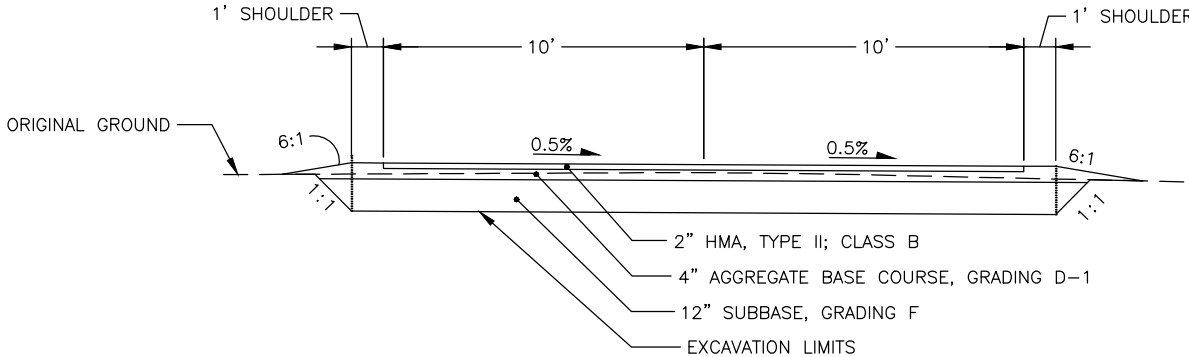
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	B1	B1



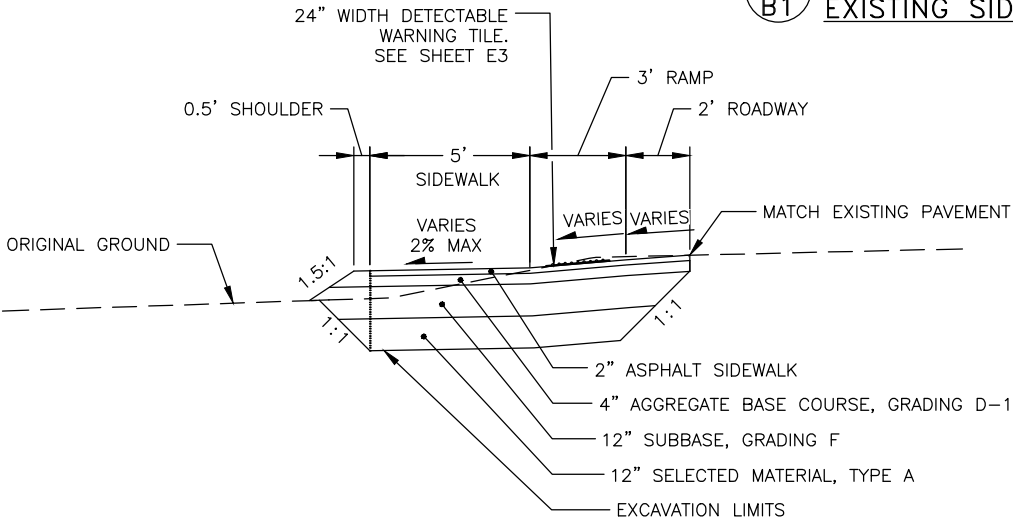
1
B1
NEW SIDEWALK



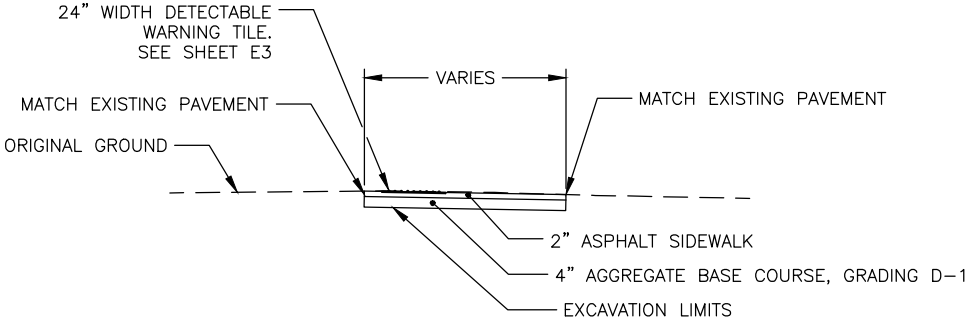
2
B1
5TH AVE DRIVEWAY
ACCESS RAMP



3
B1
5TH AVE DRIVEWAY
LANDING



5
B1
8TH AVE-SNOWMAN LN
NE CORNER SIDEWALK



6
B1
8TH AVE-SNOWMAN LN
SE CORNER SIDEWALK

- NOTES:**
- SEE G SHEETS FOR GRADE POINTS, SAWCUT, AND LAYOUT INFORMATION.
 - CONSTRUCT PROJECT TO THE LIMITS SHOWN ON THIS SHEET UNLESS OTHERWISE DICTATED BY THE G SHEETS.

TYPICAL SECTIONS



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old rich intersections\DWGS\C\Sheets\00158_C_EQQ-C1 Tue, Aug/11/20 01:07am

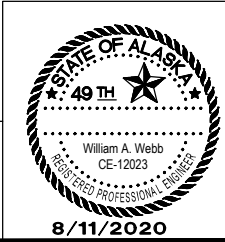
ESTIMATE OF QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	TOTAL
201.0007.0000	CLEARING	LUMP SUM	ALL REQ'D
201.0009.0000	CLEARING AND GRUBBING	LUMP SUM	ALL REQ'D
202.0002.0000	REMOVAL OF PAVEMENT	SQUARE YARD	1,358
202.0003.0000	REMOVAL OF SIDEWALK	SQUARE YARD	23
202.0009.0000	REMOVAL OF CURB AND GUTTER	LINEAR FOOT	40
202.2022.0000	REMOVAL OF FENCE	LINEAR FOOT	84
203.0003.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	720
203.0006.0000	BORROW	TON	560
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	180
304.0001.000F	SUBBASE, GRADING F	TON	935
306.0001.0000	ATB	TON	250
306.0002.5228	ASPHALT BINDER, GRADE PG 52-28	TON	11
401.0001.002B	HMA, TYPE II; CLASS B	TON	130
401.0004.5240	ASPHALT BINDER, GRADE PG 52-40	TON	6
401.0015.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
607.0003.0000	CHAIN LINK FENCE	LINEAR FOOT	85
608.0001.0006	CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	114
608.0002.0000	ASPHALT SIDEWALK	TON	75
608.0006.0000	CURB RAMP	EACH	5
608.2016.0000	DETECTABLE WARNING TILE	SY	20
609.0002.0001	CURB AND GUTTER, TYPE 1	LINEAR FOOT	432
615.0001.0000	STANDARD SIGN	SQUARE FOOT	169.67
615.0006.0000	SALVAGE SIGN	EACH	38
618.0002.0000	SEEDING	POUND	2
620.0001.0000	TOPSOIL	SQUARE YARD	140
639.0001.0000	DRIVEWAY	EACH	1
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQ'D
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQ'D
641.0004.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL ADDITIVES	CONTINGENT SUM	ALL REQ'D
641.0006.0000	WITHHOLDING	CONTINGENT SUM	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LUMP SUM	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HOURL	40
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQ'D

ESTIMATE OF QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	TOTAL
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQ'D
643.0032.0000	FLAGGING	CONTINGENT SUM	ALL REQ'D
644.0001.0000	FIELD OFFICE	LUMP SUM	ALL REQ'D
644.0006.0000	VEHICLE	LUMP SUM	ALL REQ'D
646.0001.0000	CPM SCHEDULING	LUMP SUM	ALL REQ'D
660.0002.0000	FLASHING BEACON SYSTEM COMPLETE, 5TH AVE	LUMP SUM	ALL REQ'D
660.0003.0000	HIGHWAY LIGHTING SYSTEM COMPLETE, 5TH AVE	LUMP SUM	ALL REQ'D
661.0005.0000	MODIFY LOAD CENTER	EACH	1
670.0010.0000	METHYL METHACRYLATE PAVEMENT MARKINGS	LUMP SUM	ALL REQ'D

ESTIMATED LUMP SUM QUANTITIES		
ITEM NO.	DESCRIPTION	QUANTITY
201.0007.0000	CLEARING	2.26 ACRES
201.0009.0000	CLEARING AND GRUBBING	5,576 SF
660.0002.0000	FLASHING BEACON SYSTEM COMPLETE	
	LED SIGN	1 EA
	POLE AND FOUNDATION	1 EA
	CABLE	80 LF
	CONDUIT	20 LF
660.0003.0000	HIGHWAY LIGHTING SYSTEM COMPLETE	
	ELECTRICAL ITEMS	1 LS
	JUNCTION BOX TYPE IA	1 EA
	JUNCTION BOX TYPE II	1 EA
	RELOCATE LIGHT POLE	1 EA
670.0010.0000	METHYL METHACRYLATE PAVEMENT MARKINGS	
	4" WHITE	383 LF
	8" WHITE	64 LF
	4" DY	292 LF
	24" WHITE	1,410 SF
	RR "X" WHITE	52 SF
	"RR" WHITE	10 SF

TABLE OF ESTIMATING FACTORS		
ITEM NO.	DESCRIPTION	UNIT
203.0006.0000	BORROW	2.0 TONS / CUBIC YARD
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	2.0 TONS / CUBIC YARD
304.0001.000F	SUBBASE, GRADING F	2.0 TONS / CUBIC YARD
306.0001.0000	ATB	2.0 TONS / CUBIC YARD
306.0002.5228	ASPHALT BINDER, GRADE PG 52-28	4.5% WEIGHT OF 306.0001.0000
401.0001.002B	HMA, TYPE II; CLASS B	2.0 TONS / CUBIC YARD
401.0004.5240	ASPHALT BINDER, GRADE PG 52-40	5.5% WEIGHT OF 401.0001.002B
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	0.000334 TONS / SQUARE YARD
608.0002.0000	ASPHALT SIDEWALK	2.0 TONS / CUBIC YARD
618.0002.0000	SEEDING	1 LBS. / 1000 SQUARE FOOT

ESTIMATE OF QUANTITIES



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old rich intersections\DWGS\C\Sheets\00158_D_Summaries-D1 Tue, Aug/11/20 12:40am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	D1	D2

201.0007.0000 CLEARING – LUMP SUM				
SHEET	START STATION	END STATION	OFFSET	REMARKS
E1	"L"115+81.2	"L"125+26.7	LT	WEST SIDE OF ARRC TRACKS BETWEEN 5TH & 8TH
E1	"L"115+79.7	"L"125+50.8	LT	EAST SIDE OF ARRC TRACKS BETWEEN 5TH & 8TH

201.0009.0000 CLEARING AND GRUBBING – LUMP SUM				
SHEET	START STATION	END STATION	OFFSET	REMARKS
E1	"8A" 50+01.13	"8A" 50+76.36	LT	8TH AVE WEST OF ARRC CROSSING
E1	"8A" 50+81.52	"8A" 51+41.24	LT	8TH AVE EAST OF ARRC CROSSING
E1	"8A" 51+74.75	"8A" 52+17.10	LT	8TH AVE–SNOWMAN LN NE CORNER SIDEWALK
E1	"8A" 51+96.60	"8A" 52+16.72	RT	8th AVE–SNOWMAN LN SE CORNER SIDEWALK
E1	"5E" 10+17.39	"5E" 10+75.3	LT	5TH AVE WEST OF ARRC CROSSING
E1	"5E" 10+85.33	"5E" 12+37.41	LT	5TH AVE EAST OF ARRC CROSSING

202.0002.0000 REMOVAL OF PAVEMENT – SQUARE YARD						
SHEET	BEGIN		END		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
E1	"8A" 49+95.55	LT	"8A" 50+83.73	LT	175	8TH AVE WEST OF ARRC CROSSING
E1	"8A" 50+88.34	LT	"8A" 51+60.77	LT	266	8TH AVE EAST OF ARRC CROSSING
E1	"8A" 51+74.01	LT	"8A" 52+13.98	LT	11	8TH AVE–SNOWMAN LN NE CORNER SIDEWALK
E1	"8A" 51+96.60	RT	"8A" 52+16.64	RT	8	8TH AVE–SNOWMAN LN SE CORNER SIDEWALK
E1	"5E" 10+00	LT	"5E" 10+75.19	LT	393	5TH AVE WEST OF ARRC CROSSING
E1	"5E" 10+85.25	LT	"5E" 12+51.85	LT	505	5TH AVE EAST OF ARRC CROSSING
TOTAL					1,358	

202.0003.0000 REMOVAL OF SIDEWALK – SQUARE YARD						
SHEET	BEGIN		END		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
E1	"5E"12+21.6	29.9' LT	"5E"12+42.7	53.8' LT	23	SANTA CLAUS LN
TOTAL					23	

202.0009.0000 REMOVAL OF CURB AND GUTTER – LINEAR FOOT						
SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
E1	"5E" 12+21.17	29.34' LT	"5E" 12+43.29	53.56' LT	40	SANTA CLAUS LN
TOTAL					40	

202.2022.0000 REMOVAL OF FENCE – LINEAR FOOT						
SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
E1	"8A" 50+99.62	88.5 LT	"8A" 51+22.86	33.2 LT	60	8TH AVE EXISTING SIDEWALK TIE–IN
E1	"5E" 10+43.50	103.9 LT	"5E" 10+40.62	80.3 LT	24	5TH AVE EXISTING SIDEWALK TIE–IN
TOTAL					84	

SUMMARY TABLES



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old rich intersections\DWGS\C\Sheets\00158_D_Summaries-D2 Tue, Aug/11/20 12:40am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	D2	D2

607.0003.0000 CHAIN LINK FENCE – LINEAR FOOT						
SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
G1	"8A" 51+20	88’ LT	"8A" 51+00	32’ LT	60	8’ – 8TH AVE EXISTING SIDEWALK TIE-IN
G2	"5E" 10+44	105’ LT	"5E" 10+41	80’ LT	25	8’ – 5TH AVE EXISTING SIDEWALK TIE-IN
TOTAL					85	

608.0006.0000 CURB RAMP – EACH				
SHEET	STATION	OFFSET	TYPE	REMARKS
G1	"8A" 50+11	LT	PARALLEL	8TH AVE–OLD RICHARDSON HWY
G1	"8A" 51+44	LT	PERPENDICULAR	8TH AVE–SNOWMAN LN NW CORNER
G2	"5E" 10+28	LT	PARALLEL	5TH AVE–OLD RICHARDSON HWY
G2	"5E" 11+88	LT	PARALLEL	5TH AVE–PATHWAY
G2	"5E" 12+41	LT	PARALLEL	5TH AVE–SANTA CLAUS LN
TOTAL			5	

608.0001.0006 CONCRETE SIDEWALK, 6 INCHES THICK – SQUARE YARD						
SHEET	BEGIN		END		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
G1	"8A" 50+06	LT	"8A" 50+29	LT	20	8TH AVE–OLD RICHARDSON HWY CURB RAMP
G1	"8A" 50+56	LT	"8A" 50+58	LT	3	8TH AVE ARRC CROSSING DWT
G1	"8A" 51+05	LT	"8A" 51+07	LT	3	8th AVE ARRC CROSSING DWT
G1	"8A" 51+34	LT	"8A" 51+45	LT	8	8TH AVE–SNOWMAN LN CURB RAMP
G1	"8A" 51+79	LT	"8A" 52+02	LT	7	8TH AVE–SNOWMAN LN NE CORNER SIDEWALK DWT
G1	"8A" 51+91	RT	"8A" 52+10	LT	5	8TH AVE–SNOWMAN LN SE CORNER SIDEWALK DWT
G2	"5E" 10+21	LT	"5E" 10+44	LT	24	OLD RICHARDSON HWY–5TH AVE CURB RAMP
G2	"5E" 10+55	LT	"5E" 10+57	LT	3	5TH AVE ARRC CROSSING DWT
G2	"5E" 11+04	LT	"5E" 11+06	LT	3	5TH AVE ARRC CROSSING DWT
G2	"5E" 11+71	LT	"5E" 11+97	LT	23	5TH AVE MID–BLOCK CURB RAMP
G2	"5E" 12+29	LT	"5E" 12+43	LT	15	NW 5TH AVE–SANTA CLAUS CURB RAMP
TOTAL					114	

608.2016.0000 DETECTABLE WARNING TILE – SY				
SHEET	STATION	OFFSET	QUANTITY (SY)	REMARKS
G1	"8A" 50+57	LT	2.2	8TH AVE ARRC CROSSING
G1	"8A" 51+06	LT	2.2	8TH AVE ARRC CROSSING
G1	"8A" 51+87	LT	5.7	8TH AVE/SNOWMAN LN NE CORNER SIDEWALK
G1	"8A" 51+98	RT	4.8	8TH AVE/SNOWMAN LN SE CORNER SIDEWALK
G2	"5E" 10+56	LT	2.2	5TH AVE ARRC CROSSING
G2	"5E" 11+05	LT	2.2	5TH AVE ARRC CROSSING
TOTAL			20.0	

609.0002.0001 CURB AND GUTTER, TYPE 1 – LINEAR FOOT						
SHEET	BEGIN		END		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
G1	"8A" 50+00	LT	"8A" 50+76	LT	86	8TH AVE WEST OF ARRC CROSSING
G1	"8A" 50+87	LT	"8A" 51+46	LT	79	8TH AVE EAST OF ARRC CROSSING
G2	"5E" 10+21	LT	"5E" 10+75	LT	89	5TH AVE WEST OF ARRC CROSSING
G2	"5E" 10+85	LT	"5E" 12+43	LT	178	5TH AVE EAST OF ARRC CROSSING
TOTAL					432	

SUMMARY TABLES

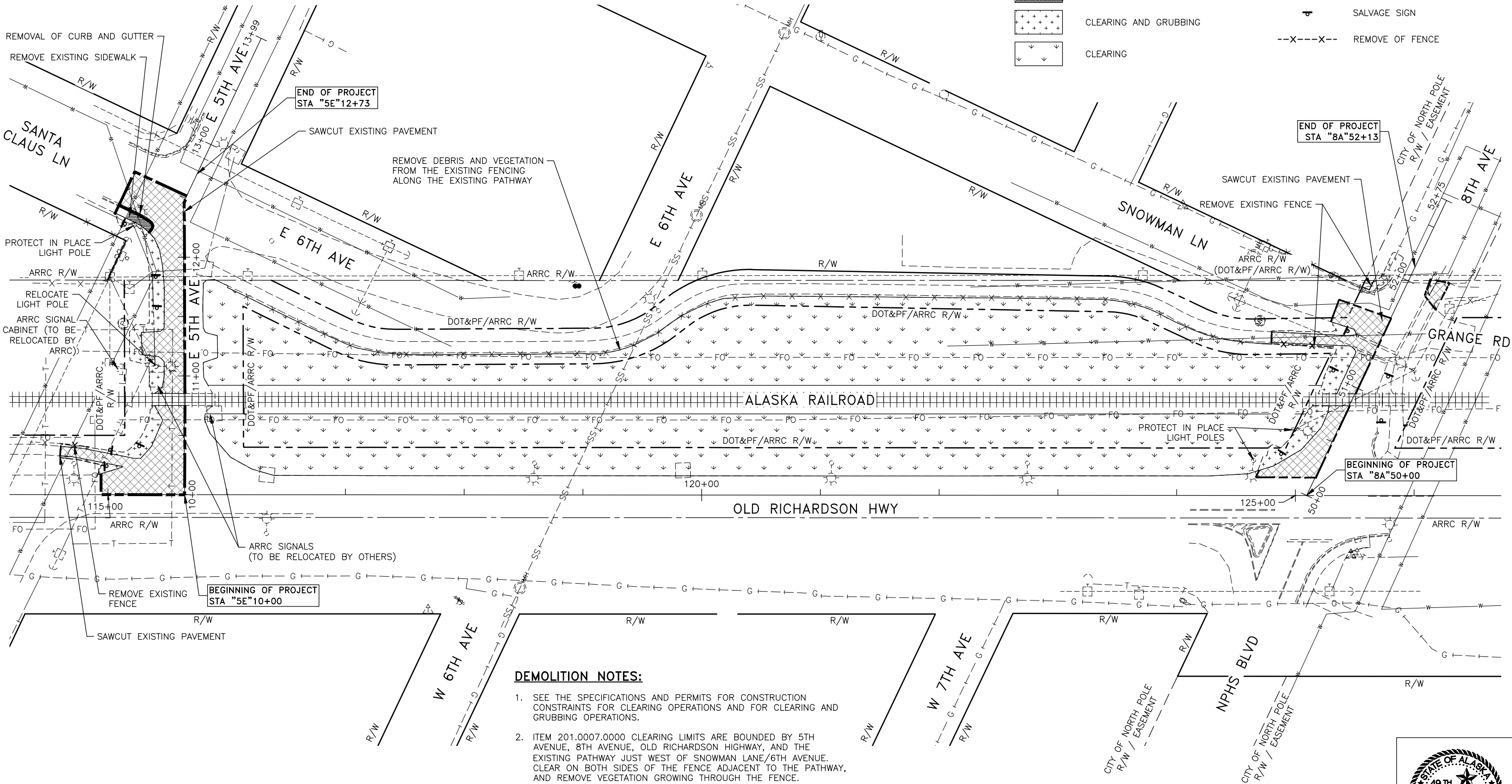


PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_Old Rich Intersections\DWGS\00158_E-Demo-E1 Fri, May/28/21 02:58pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	E1	E4

DEMOLITION LEGEND

	REMOVAL OF PAVEMENT		SAWCUT
	REMOVAL OF SIDEWALK		REMOVAL OF CURB AND GUTTER
	CLEARING AND GRUBBING		SALVAGE SIGN
	CLEARING		REMOVE OF FENCE



DEMOLITION NOTES:

- SEE THE SPECIFICATIONS AND PERMITS FOR CONSTRUCTION CONSTRAINTS FOR CLEARING OPERATIONS AND FOR CLEARING AND GRUBBING OPERATIONS.
- ITEM 201.0007.0000 CLEARING LIMITS ARE BOUNDED BY 5TH AVENUE, 8TH AVENUE, OLD RICHARDSON HIGHWAY, AND THE EXISTING PATHWAY JUST WEST OF SNOWMAN LANE/6TH AVENUE. CLEAR ON BOTH SIDES OF THE FENCE ADJACENT TO THE PATHWAY, AND REMOVE VEGETATION GROWING THROUGH THE FENCE.
- ITEM 201.0009.0000 CLEARING AND GRUBBING LIMITS ARE FROM THE EDGE OF EXISTING IMPROVED SURFACE TO THE EXTENT OF THE PROPOSED SLOPE LIMITS.
- SAWCUT FULL DEPTH OF EXISTING ASPHALT.

DEMOLITION PLAN



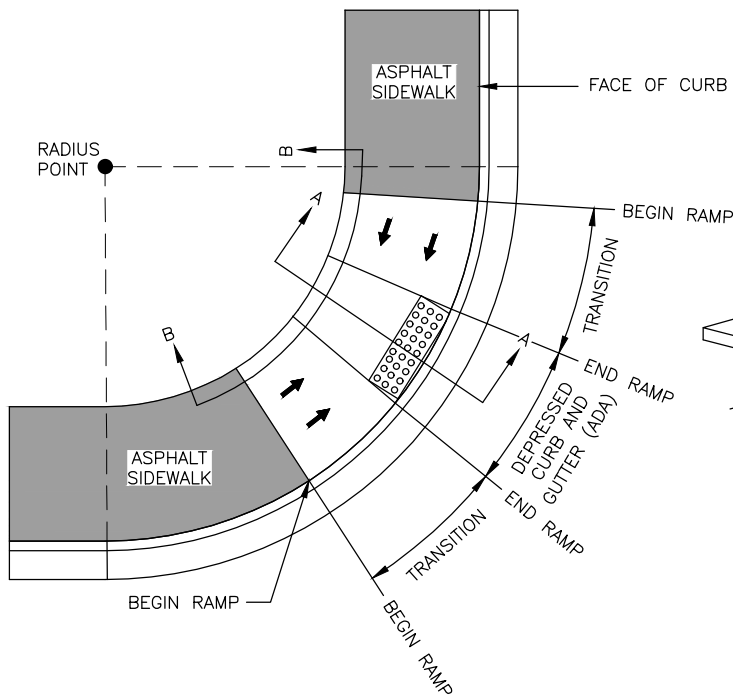
5/28/2021

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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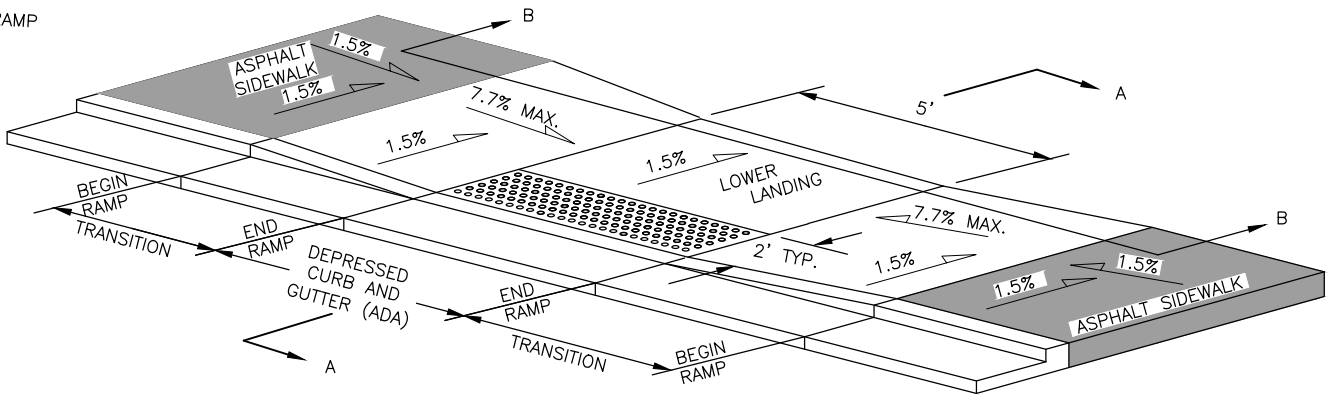
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	E3	E4

NOTES:


- SEE PLANS FOR RAMP TYPE AT SPECIFIC LOCATIONS. SEE STRIPING PLANS FOR CROSSWALK LAYOUTS. ALL CURB RAMP LAYOUTS AND DIMENSIONS IN THIS PLAN SET ARE APPROXIMATE AND NEED TO BE FIELD FIT AND SHALL MEET APPLICABLE 2006 AND 2010 ADA STANDARDS FOR MAXIMUM SLOPES. FINAL LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT.
- CURB RAMP SHALL BE 6" THICK CONCRETE INCLUDING TRANSITIONS.
- APPLY TACK COAT BETWEEN ALL CONCRETE AND ASPHALT INTERFACINGS.
- STEEL REINFORCEMENT FOR CURB RAMP SHALL BE 6" X 6" - W2.9 X W2.9 WWM. ALL STEEL SHALL BE SET ON SPACERS AND PULLED UP AS REQUIRED TO POSITION STEEL 1-1/2" FROM BOTTOM OF SIDEWALK.
- RAMP RUN LENGTHS ARE SHOWN FOR A FLAT SIDEWALK GRADE. FOR OTHER SIDEWALK GRADES, INCREASE OR DECREASE RAMP AND FLARE LENGTHS TO MAINTAIN THE SLOPES SHOWN.
- CONSTRUCT RAMP SLOPES AT A NOMINAL 7.7% GRADE, OR FLATTER. RAMP SLOPES MAY BE INCREASED TO A MAXIMUM OF 8.3% WHEN SITE CONDITIONS WARRANT IT. RAMP LENGTHS SHOULD BE INCREASED TO KEEP GRADES UNDER THE 8.3% MAXIMUM, BUT ARE NOT REQUIRED TO EXCEED 15.0 FEET. THE RESULTING RAMP GRADE AT A 15.0 FOOT RAMP LENGTH IS ACCEPTABLE EVEN IF IT EXCEEDS 8.3%.
- PROVIDE A COARSE BROOMED FINISH RUNNING PERPENDICULAR TO THE CURB ON RAMP RUNS AND UPPER LANDINGS AND PARALLEL TO THE CURB ON LOWER LANDINGS.
- INSTALL FEDERAL YELLOW, 24" CAST IRON DETECTABLE WARNING TILES MEETING SECTION 705.1 OF THE 2006 ADA STANDARDS FOR TRANSPORTATION FACILITIES FOR THE FULL WIDTH OF THE LANDING. ALIGN TRUNCATED DOME PATTERN IN THE PREDOMINANT DIRECTION OF WHEELCHAIR TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
- MAXIMUM CROSS SLOPE ON LOWER LANDINGS IS 2.0% AS MEASURED IN ANY DIRECTION. MAXIMUM CROSS SLOPE ON RAMP IS 2.0% MEASURED PERPENDICULAR TO THE RAMP RUN. MAXIMUM SLOPE ON UPPER LANDINGS IS 2.0% AS MEASURED IN ANY DIRECTION.

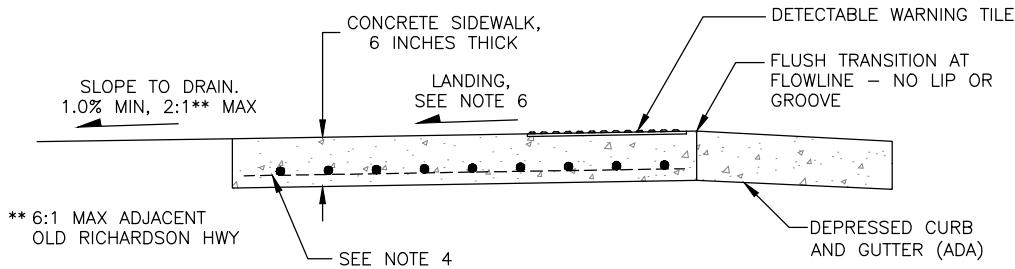


CORNER PLAN
GENERIC LOCATION SHOWN

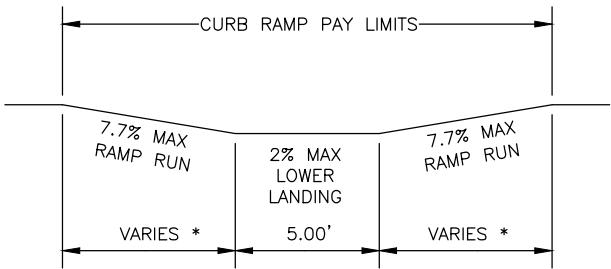


MID-BLOCK PLAN
GENERIC LOCATION SHOWN

 = DETECTABLE WARNING TILE SEE NOTE 8

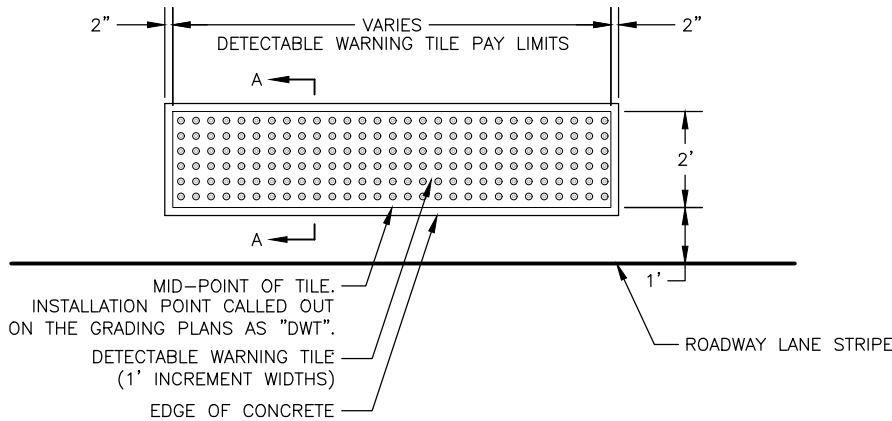


SECTION A-A

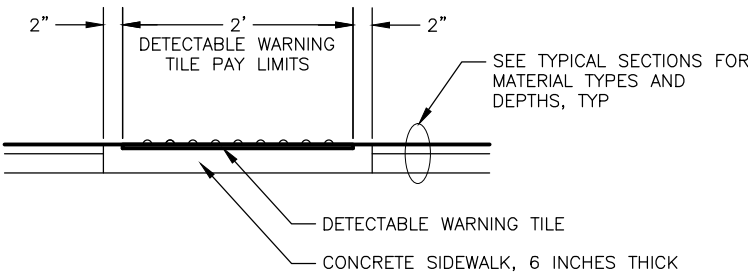


* SEE NOTE 6
PROFILE B-B

PARALLEL CURB RAMP



PLAN



SECTION A-A

ASPHALT PATHWAY DETECTABLE WARNING TILE

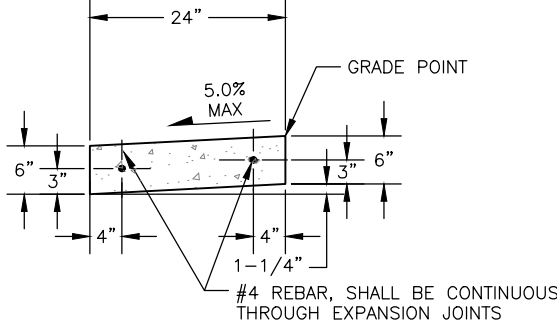
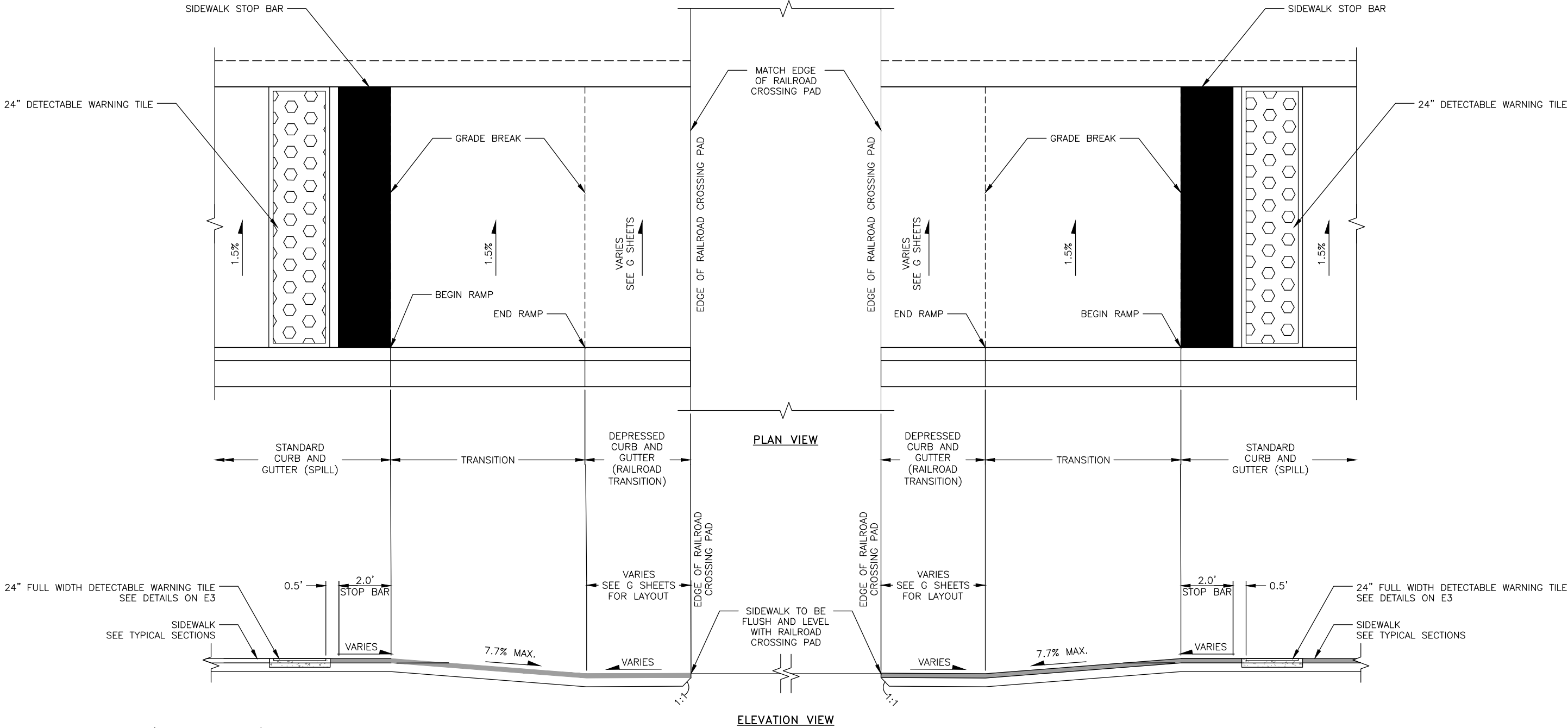
NTS

CURB RAMP DETAILS



8/11/2020

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	E4	E4

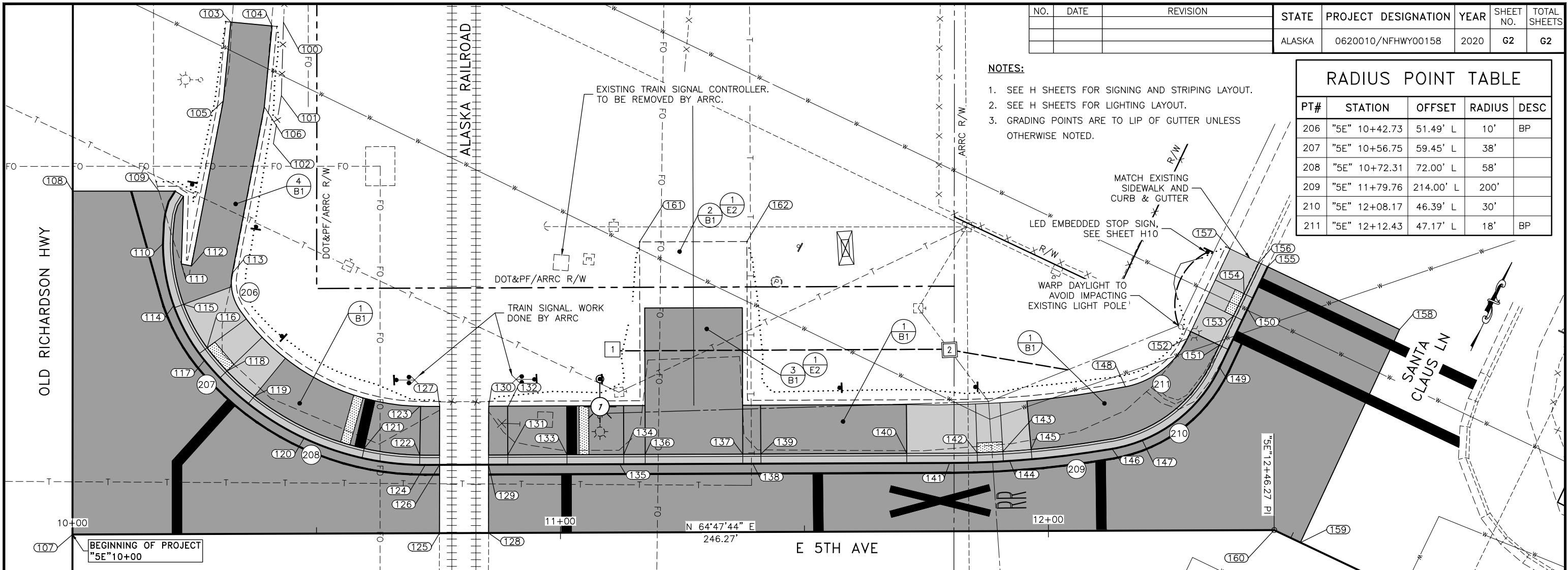


DEPRESSED CURB AND GUTTER
(RAILROAD TRANSITION)

PATHWAY RAMP TO ARRC CROSSING
TRANSITION DETAIL
NTS

RAILROAD CROSSING
DETAILS





NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	G2	G2

NOTES:

1. SEE H SHEETS FOR SIGNING AND STRIPING LAYOUT.
2. SEE H SHEETS FOR LIGHTING LAYOUT.
3. GRADING POINTS ARE TO LIP OF GUTTER UNLESS OTHERWISE NOTED.

RADIUS POINT TABLE

PT#	STATION	OFFSET	RADIUS	DESC
206	"5E" 10+42.73	51.49' L	10'	BP
207	"5E" 10+56.75	59.45' L	38'	
208	"5E" 10+72.31	72.00' L	58'	
209	"5E" 11+79.76	214.00' L	200'	
210	"5E" 12+08.17	46.39' L	30'	
211	"5E" 12+12.43	47.17' L	18'	BP

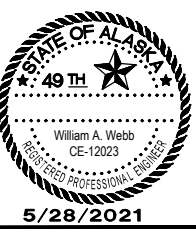
GRADING POINT TABLE				
PT#	STATION	OFFSET	ELEV	DESC
100	"5E" 10+43.62	104.81' L		FENCE
101	"5E" 10+43.12	89.82' L		FENCE
102	"5E" 10+41.45	79.97' L		FENCE
103	"5E" 10+32.80	104.94' L	ME	PI, EP, PATH
104	"5E" 10+41.26	104.10' L	ME	PI, EP, PATH
105	"5E" 10+31.21	88.78' L	496.29'	PI, EP, PATH
106	"5E" 10+39.63	87.55' L	496.16'	PI, EP, PATH
107	"5E" 10+00.00	0.00' R	ME	PI, SAWCUT
108	"5E" 10+00.30	70.38' L	ME	PI, EP, SAWCUT
109	"5E" 10+17.94	70.38' L	ME	EP, SAWCUT
110	"5E" 10+18.75	59.57' L	496.42'	PC, TERM TRANS
111	"5E" 10+22.52	55.37' L	496.46'	PI, BP
112	"5E" 10+24.55	54.95' L	496.98'	PI, BP
113	"5E" 10+32.92	53.42' L	496.85'	PC, BP
114	"5E" 10+20.89	46.86' L	496.44'	PVI
115	"5E" 10+22.92	47.11' L	497.04'	TBC, BEGIN RAMP
116	"5E" 10+27.71	38.16' L	496.49'	TBC, END RAMP
117	"5E" 10+27.16	35.60' L	496.38'	PCC
118	"5E" 10+31.77	33.37' L	496.47'	TBC, END RAMP

GRADING POINT TABLE				
PT#	STATION	OFFSET	ELEV	DESC
119	"5E" 10+37.39	28.23' L	496.93'	TBC, BEGIN RAMP
120	"5E" 10+47.52	19.57' L	496.27'	PVI
121	"5E" 10+59.85	17.41' L	496.90'	TBC, BEGIN RAMP
122	"5E" 10+71.23	16.01' L	496.22'	TBC, END RAMP
123	"5E" 10+71.26	26.01' L	496.07'	PVI, BP, END RAMP
124	"5E" 10+72.31	14.00' L	496.32'	PT
125	"5E" 10+75.19	0.00' R	ME	PI, EP, SAWCUT
126	"5E" 10+75.25	14.00' L	ME	PVI, SAWCUT
127	"5E" 10+75.34	26.00' L	ME	PVI, BP
128	"5E" 10+85.25	0.00' R	ME	PI, EP, SAWCUT
129	"5E" 10+85.31	14.00' L	ME	PVI, SAWCUT
130	"5E" 10+85.38	26.00' L	ME	PVI, BP
131	"5E" 10+89.25	16.00' L	496.23'	TBC, END RAMP
132	"5E" 10+89.38	26.00' L	496.08'	PVI, BP, END RAMP
133	"5E" 11+01.39	16.00' L	496.91'	TBC, BEGIN RAMP
134	"5E" 11+13.03	16.00' L	496.57'	TBC, BEGIN RAMP
135	"5E" 11+12.18	14.00' L	496.28'	PVI
136	"5E" 11+17.41	16.00' L	496.56'	TBC, END RAMP
137	"5E" 11+37.41	16.00' L	496.53'	TBC, END RAMP

GRADING POINT TABLE				
PT#	STATION	OFFSET	ELEV	DESC
138	"5E" 11+39.49	14.00' L	496.23'	PVI
139	"5E" 11+41.13	16.00' L	496.80'	TBC, BEGIN RAMP
140	"5E" 11+71.01	16.00' L	496.24'	TBC, BEGIN RAMP
141	"5E" 11+79.76	14.00' L	495.47'	PC
142	"5E" 11+85.44	16.08' L	495.46'	TBC, END RAMP
143	"5E" 11+90.70	16.30' L	495.36'	TBC, END RAMP
144	"5E" 11+92.11	14.38' L	495.24'	RAMP
145	"5E" 11+96.48	16.71' L	495.76'	TBC, BEGIN RAMP
146	"5E" 12+13.12	16.80' L	494.88'	PCC
147	"5E" 12+19.29	18.53' L	494.77'	PVI
148	"5E" 12+15.88	29.50' L	495.23'	PC, BP
149	"5E" 12+35.20	33.39' L	494.80'	PT
150	"5E" 12+40.96	45.36' L	494.82'	PVI
151	"5E" 12+35.18	37.95' L	495.16'	TBC, BEGIN RAMP
152	"5E" 12+28.65	39.37' L	495.31'	PT, BP
153	"5E" 12+38.08	43.98' L	494.92'	TBC, END RAMP
154	"5E" 12+40.25	48.49' L	494.93'	TBC, END RAMP
155	"5E" 12+45.12	54.00' L	ME	PI, SAWCUT
156	"5E" 12+43.31	54.86' L	ME	TBC, BEGIN RAMP

GRADING POINT TABLE				
PT#	STATION	OFFSET	ELEV	DESC
157	"5E" 12+37.41	57.69' L	ME	PI, BP
158	"5E" 12+51.86	48.19' L	ME	PI, EP, SAWCUT
159	"5E" 12+52.19	0.00' R	ME	PI, EP, SAWCUT
160	"5E" 12+46.27	0.00' R	ME	PI, EP, SAWCUT
161	"5E" 11+16.41	59.56' L	ME	PI, ED
162	"5E" 11+38.41	59.56' L	ME	PI, ED

GRADING PLANS



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_Old Rich Intersections\DWGS\C_Sheets\00158_H1-H2_SSI-H1 Fri, May/28/21 02:49pm

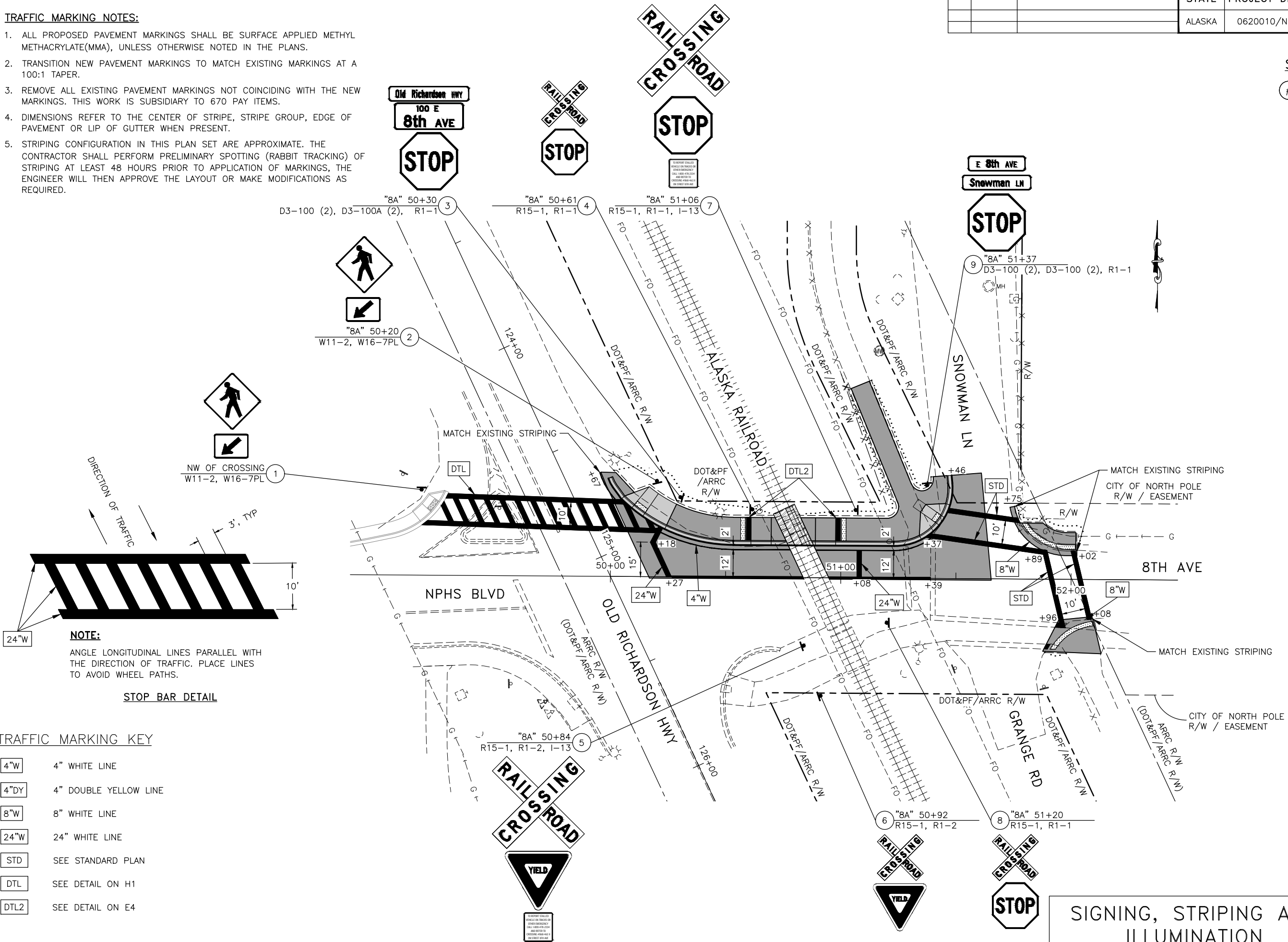
TRAFFIC MARKING NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE SURFACE APPLIED METHYL METHACRYLATE(MMA), UNLESS OTHERWISE NOTED IN THE PLANS.
2. TRANSITION NEW PAVEMENT MARKINGS TO MATCH EXISTING MARKINGS AT A 100:1 TAPER.
3. REMOVE ALL EXISTING PAVEMENT MARKINGS NOT COINCIDING WITH THE NEW MARKINGS. THIS WORK IS SUBSIDIARY TO 670 PAY ITEMS.
4. DIMENSIONS REFER TO THE CENTER OF STRIPE, STRIPE GROUP, EDGE OF PAVEMENT OR LIP OF GUTTER WHEN PRESENT.
5. STRIPING CONFIGURATION IN THIS PLAN SET ARE APPROXIMATE. THE CONTRACTOR SHALL PERFORM PRELIMINARY SPOTTING (RABBIT TRACKING) OF STRIPING AT LEAST 48 HOURS PRIOR TO APPLICATION OF MARKINGS, THE ENGINEER WILL THEN APPROVE THE LAYOUT OR MAKE MODIFICATIONS AS REQUIRED.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H1	H14

SIGN SYMBOL KEY

STATION
SIGN CODE(S)
SIGNING LOCATION #



NOTE:

ANGLE LONGITUDINAL LINES PARALLEL WITH THE DIRECTION OF TRAFFIC. PLACE LINES TO AVOID WHEEL PATHS.

STOP BAR DETAIL

TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
24"W	24" WHITE LINE
STD	SEE STANDARD PLAN
DTL	SEE DETAIL ON H1
DTL2	SEE DETAIL ON E4

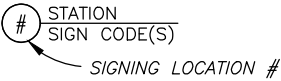
SIGNING, STRIPING AND ILLUMINATION



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H2	H14

SIGN SYMBOL KEY



CONSTRUCTION NOTES:

- 1) MODIFY EXISTING LOAD CENTER. SEE SHEET H14.
- 2) REMOVE EXISTING JUNCTION BOX. EXTEND THE EXISTING 2" RMC RUNS CROSSING 5TH AVENUE AND SERVING LIGHTS ALONG SANTA CLAUS LANE TO NEW JUNCTION BOX 1.
- 3) SALVAGE EXISTING LIGHT POLE AND ABANDON FOUNDATION. INSTALL EXISTING LIGHT POLE ON NEW FOUNDATION AT POLE 1 LOCATION.
- 4) SPLICE NEW CONDUCTORS TO EXISTING IN LIGHT POLE BASE
- 5) EXTEND NEW CONDUIT FROM EXISTING JUNCTION BOX AT POLE BASE.

NOTE:

1. ARRC SIGNAL WORK (NOT SHOWN) WILL BE DONE BY OTHERS.

JUNCTION BOX SUMMARY

NO.	STATION	LOCATION		TYPE	REMARKS
		LT.	RT.		
1	"5E" 11+11	37.5		IA	
2	"5E" 11+80	37.3		II	SEE CONSTRUCTION NOTE 2.

ELECTROLIER FOUNDATION SUMMARY

POLE NO.	STATION	LOCATION		REMARKS
		LT.	RT.	
1	"5E" 11+08	31.5		INSTALL EXISTING LIGHT POLE ON NEW FOUNDATION

TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
24"W	24" WHITE LINE
STD	SEE STANDARD PLAN
DTL	SEE DETAIL ON H1
DTL2	SEE DETAIL ON E4

SIGNING, STRIPING AND ILLUMINATION



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Z:\PROJECTS\00477_old rich intersections\DWGS\C\Sheets\00158_H_SignSalvage-H4 Tue, Aug/11/20 12:43pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H4	H14

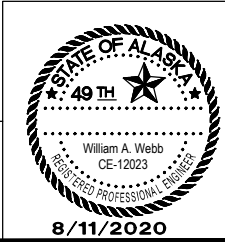
SALVAGE SIGN AND DISPOSAL NOTES:

1. DELIVER ALL ASDS CODED D3-100 SIGN PANELS, AND ANY SIGN PANELS 48-INCH WIDE AND WIDER, NOT IDENTIFIED FOR REUSE IN THE SIGNING SUMMARY, TO THE DOT&PF FAIRBANKS MAINTENANCE YARD LOCATED AT 2301 PEGER ROAD. ALL OTHER SALVAGED SIGNS WILL BECOME THE CONTRACTOR'S PROPERTY.
- CONTACT DANIEL SCHACHER (907) 451-5276 TO ARRANGE FOR DELIVERY.
2. SALVAGED SIGNS WILL BE PAID PER EACH SIGN PANEL DELIVERED IN ACCEPTABLE CONDITION.

SALVAGE SIGN SUMMARY				
STATION	CL REF	ASDS CODE	LEGEND	REMARKS
"8A" 50+22	LT	D3-100 (2)	OLD RICHARDSON HWY	2 SIGNS BACK TO BACK
		D3-100A (2)	100 E 8TH AVE	2 SIGNS BACK TO BACK
		R1-1	STOP	
"8A" 50+84	RT	R15-1	RR CROSS BUCKS	
		R1-2	YIELD	
		I-13	RR EMERGENCY PLAQUE	
"8A" 50+92	RT	R15-1	RR CROSSBUCKS	
"8A" 51+05	LT	R15-1	RR CROSSBUCKS	
		R1-1	STOP	
		I-13	RR EMERGENCY PLAQUE	
"8A" 51+20	RT	R15-1	RR CROSSBUCKS	
"8A" 51+40	LT	D3-100 (2)	E 8TH AVE	2 SIGNS BACK TO BACK
		D3-100 (2)	SNOWMAN LN	2 SIGNS BACK TO BACK
		R1-1	STOP	

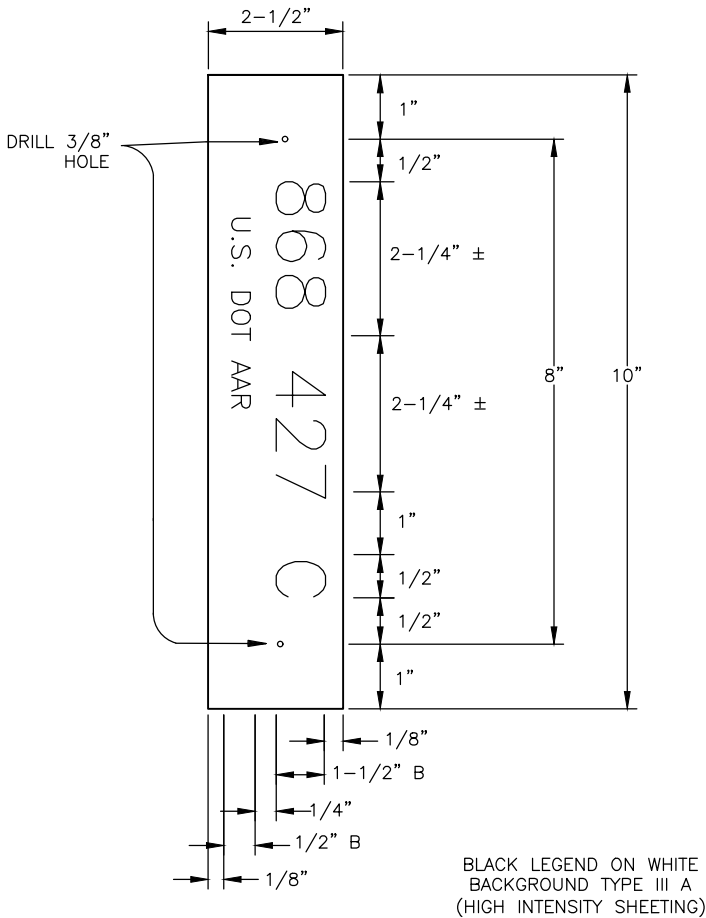
SALVAGE SIGN SUMMARY				
STATION	CL REF	ASDS CODE	LEGEND	REMARKS
"5E" 10+24	LT	D11-1	BIKE ROUTE	
		D9-301L	LEFT ARROW	
"5E" 10+38	LT	R5-3	NO MOTOR VEHICLES	
"5E" 10+41	LT	D3-100 (2)	OLD RICHARDSON HWY	2 SIGNS BACK TO BACK
		D3-100A (2)	200 E 5TH AVE	2 SIGNS BACK TO BACK
		R1-1	STOP	
"5E" 10+67	RT	R15-1	RR CROSSBUCKS	ON ARRC SIGNAL
"5E" 10+92	LT	R15-1	RR CROSSBUCKS	ON ARRC SIGNAL
"5E" 11+08	LT	R8-8	DO NOT STOP ON TRACKS	ON LIGHT POLE
"5E" 11+57	LT	W10-11a	50 FT BETWEEN TRACKS AND HWY	
		I-13	RR EMERGENCY CONTACT PLAQUE	
"5E" 11+83	LT	W10-1	HIGHWAY-RAIL GRADE CROSSING	
"5E" 12+28	LT	D3-100 (2)	E 5TH AVE	2 SIGNS BACK TO BACK
		D3-100 (2)	SANTA CLAUS LN	2 SIGNS BACK TO BACK
		R1-1	STOP	
		W4-4aPR	TRAFFIC FROM RIGHT DOES NOT STOP	

SIGN SALVAGE

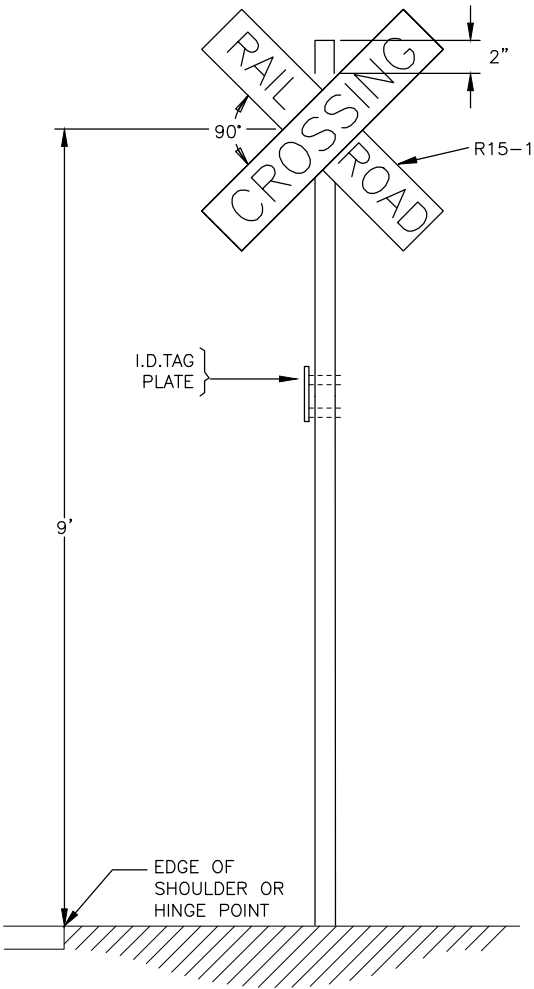


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Z:\PROJECTS\00477_old rich intersections\DWGS\c\Sheets\00158_H_Details_ISM201-H5 Tue, Aug/11/20 12:43am

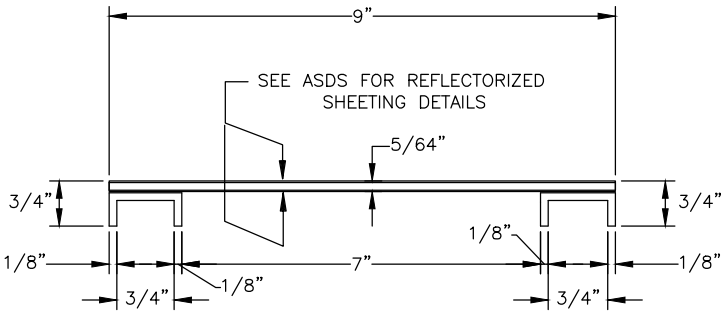
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H5	H14



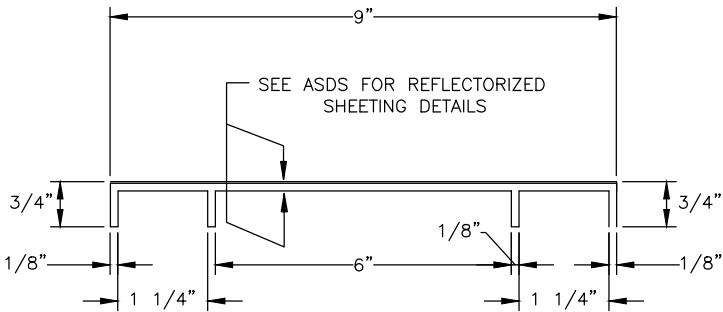
ALASKA RAILROAD X-ING
I.D. NUMBER TAG PLATE



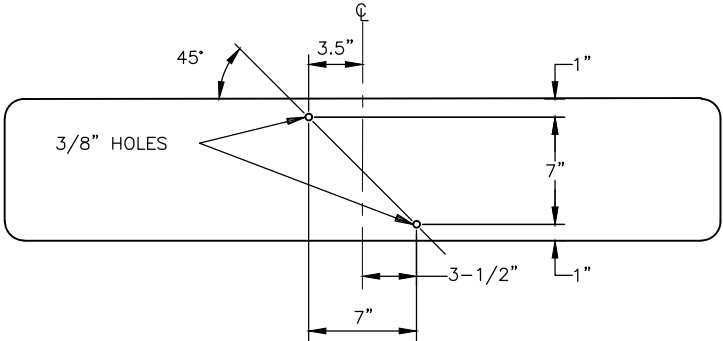
R.R. X-ING SIGN MOUNTING DETAIL



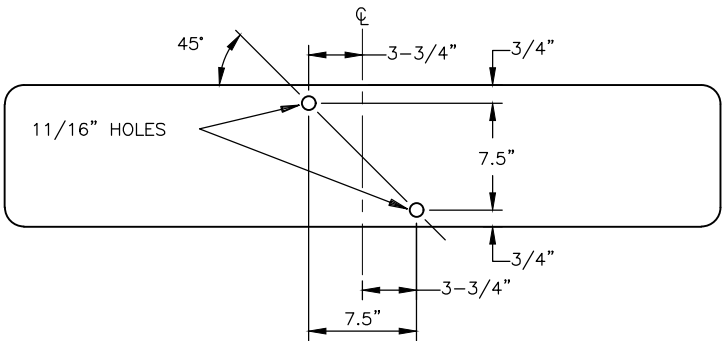
R15-1 SIGN BLADE SECTION
FOR 2-1/2" PST POST ONLY



R15-1 SIGN BLADE SECTION (EXTRUDED ALUMINUM)
FOR ALL SIGNAL POLE APPLICATIONS



R15-1 TYPICAL BOLT HOLE SPACING
FOR SINGLE 2-1/2" PST POST



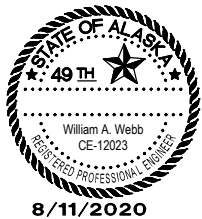
R15-1 TYPICAL BOLT HOLE SPACING
FOR ALL SIGNAL POLE APPLICATIONS

NOTES:

1. REFER TO X-ING I.D. NUMBER COLUMN ON THIS SHEET FOR CROSSING I.D. NUMBERS AT SPECIFIC PROJECT LOCATIONS.
2. MOUNT TAG PLATE 5-FT ABOVE SHOULDER POSITIONED VERTICALLY, FACING SHOULDER, AND CENTERED ON SAME POST CONTAINING THE R15-1 SIGNS.
3. TWO TAG PLATES ARE REQUIRED FOR EACH PROJECT CROSSING.
4. THE CROSSING I.D. NUMBER TAG PLATES AND MOUNTING HARDWARE ARE SUBSIDIARY TO PAY ITEM 615.0001.0000.
5. SEE SHEET H6 FOR APPROVED SIGN MOUNTING HARDWARE.
6. PRIOR TO ADDING I.D. TAG PLATES CONTACT THE ENGINEER FOR CROSSING I.D. NUMBERS THAT ARE NOT LISTED ON THE PLANS.

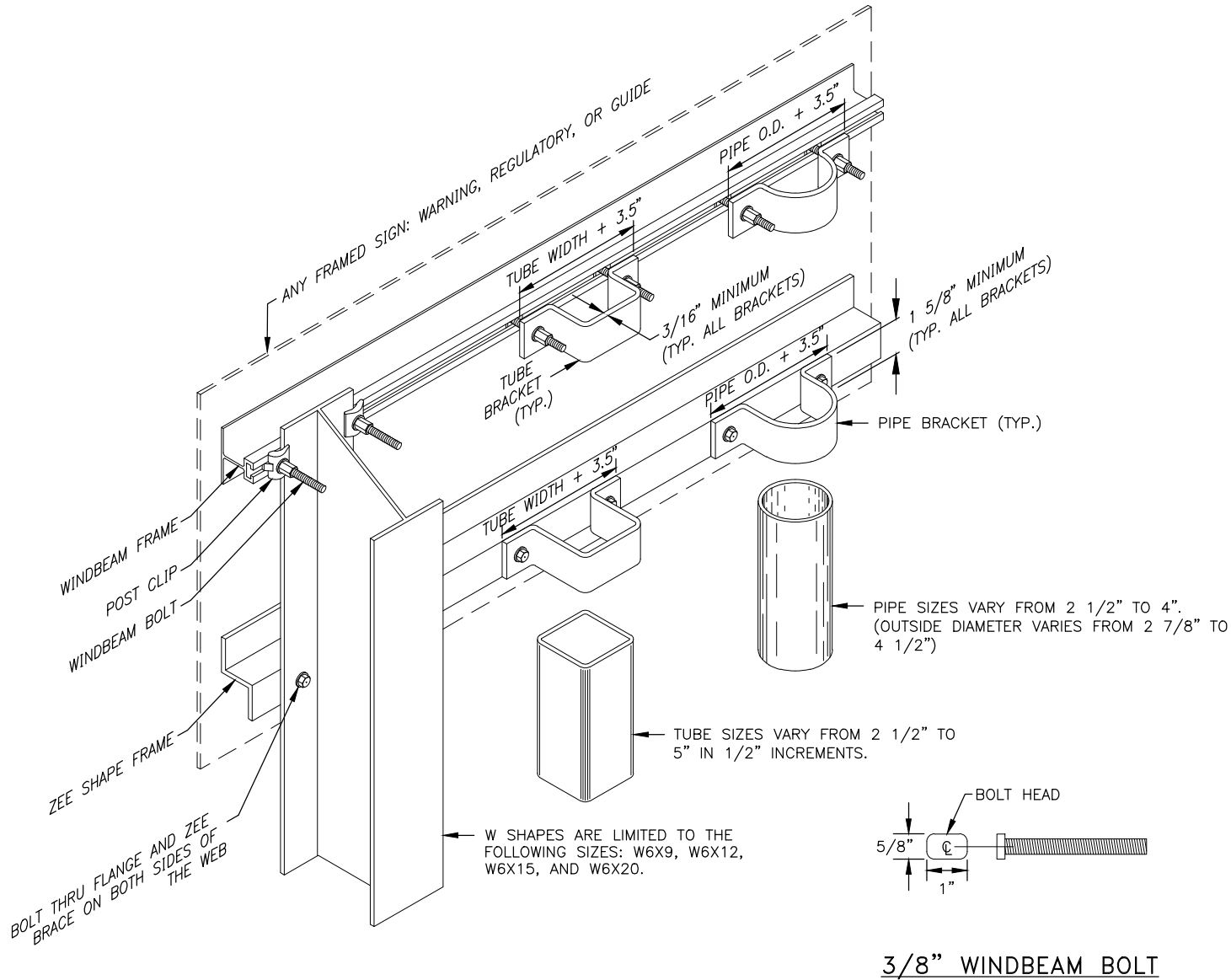
CROSSING I.D. TABLE		
LOCATION	CROSSING I.D.	REMARKS
8TH AVE XING	868 463 X	
5TH AVE XING	868 461 J	

RAILROAD CROSS BUCK
SIGN ASSEMBLY



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Z:\PROJECTS\00477_old rich intersections\DWGS\C\Sheets\00158_H_Details_TSM400-H6 Tue, Aug/11/20 12:43am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H6	H14



FRAMED SIGN ATTACHMENT BRACKETS

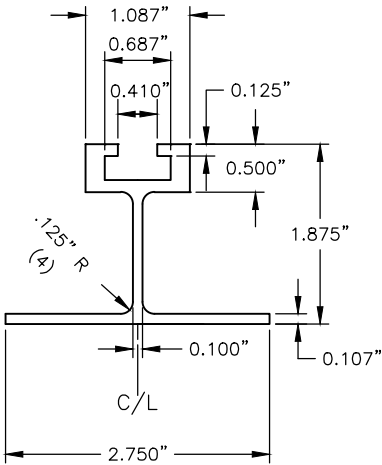
NOTES:

- ATTACH FRAMED SIGNS TO POSTS WHEREVER THE FRAMES CROSS THE POSTS. AT EACH CROSSING, ATTACH THE SIGN USING TWO POST CLIPS ON W-SHAPE POSTS, A U-SHAPED BRACKET ON PIPES OR A BRACKET WITH SQUARE CORNERS ON TUBES.
- THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
- THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
- ALUMINUM ALLOY 6061-T6 SHALL BE USED FOR ZEE SHAPE FRAMING AND RIVETS.

3/8" WINDBEAM BOLT

FASTENER SPECIFICATION TABLE		
FASTENERS	HOT DIPPED GALVANIZED STEEL	STAINLESS STEEL
BOLTS	ASTM A 307	ASTM F 593
NUTS	ASTM A 563	ASTM F 594
WASHERS	ASTM F 844	ASTM A 480

THESE SPECIFICATIONS APPLY TO ALL SIGN FASTENER HARDWARE ON THE PROJECT.

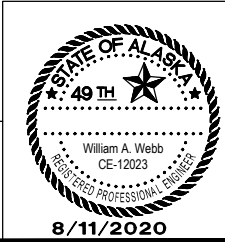


EXTRUDED ALUMINUM WINDBEAM

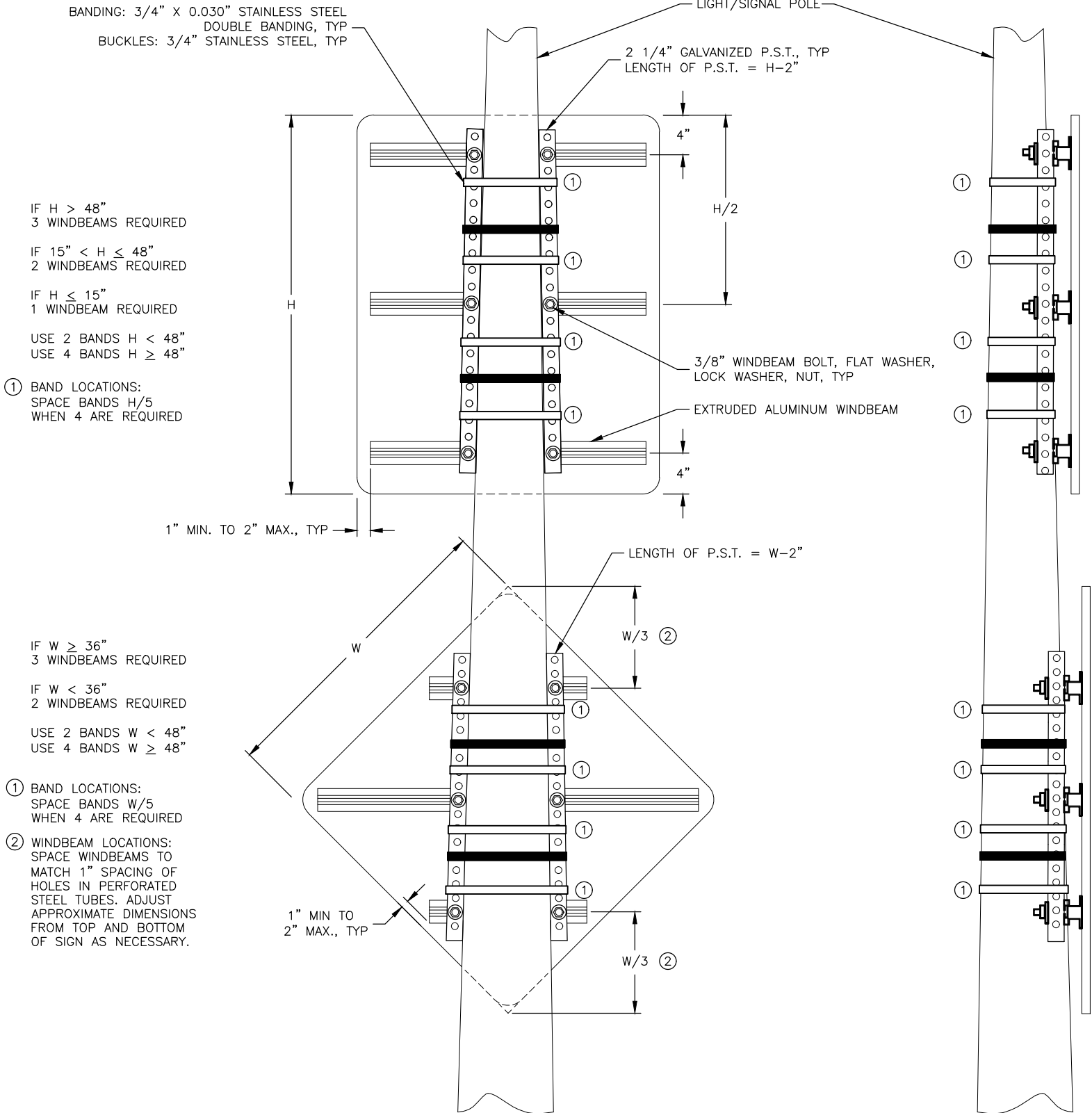
NOTES:

- ALUMINUM ALLOY 6061-T6 SHALL BE USED FOR EXTRUDED WINDBEAM AND RIVETS.
- ATTACH SIGNS TO WINDBEAM WITH 3/6" RIVETS AT 4" STAGGERED SPACING.

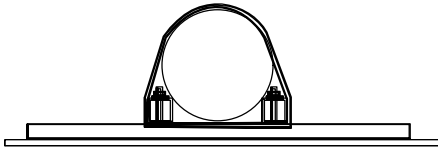
SIGN DETAILS



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H7	H14



NOTE:
ATTACH SIGN TO WINDBEAMS WITH 3/16"
RIVETS AT 4" STAGGERED SPACING.



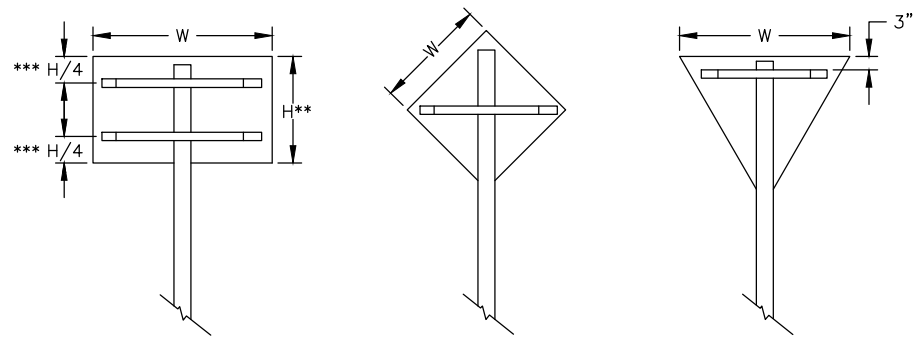
LIGHT/SIGNAL POLE SIGN FRAMING & MOUNTING DETAILS

SIGN DETAILS



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Z:\PROJECTS\00477_old rich intersections\DWGS\00158_H_Details_ISM408A-H8 Tue, Aug/11/20 12:43am

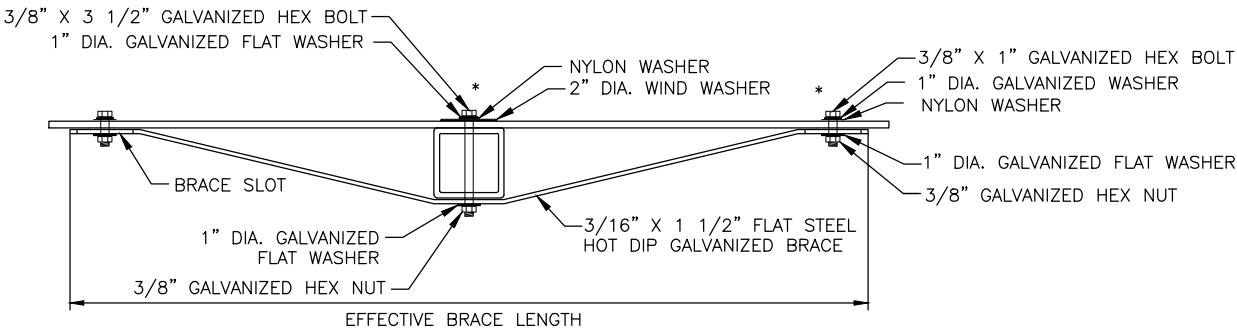
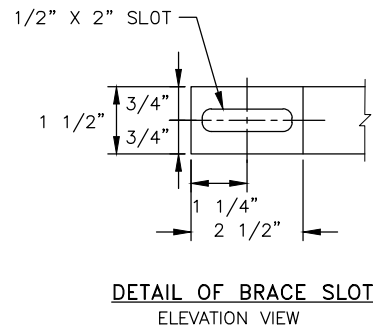
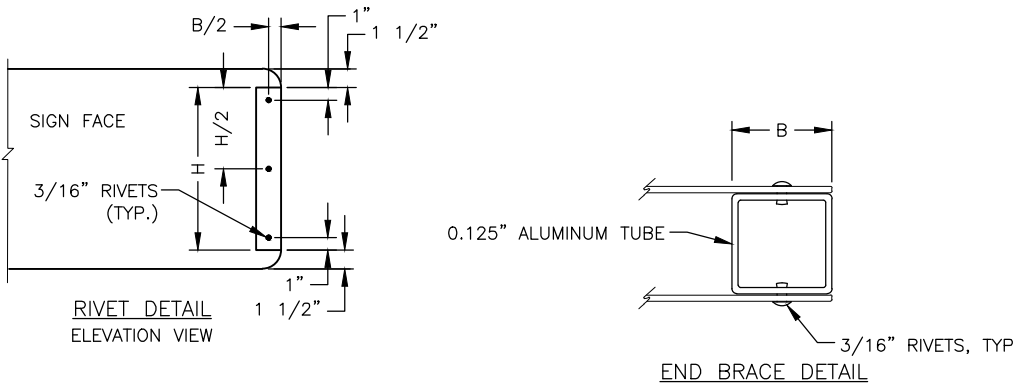
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H8	H14



*** USE ONE BRACE WHEN $H \leq 18"$
USE TWO BRACES WHEN $18" < H < 48"$
USE THREE BRACES WHEN $H \geq 48"$

** POSITION OF BRACE MAY BE VARIED TO MATCH
PREDRILLED MOUNTING HOLES IN PANEL

SIGN BRACING PLACEMENT

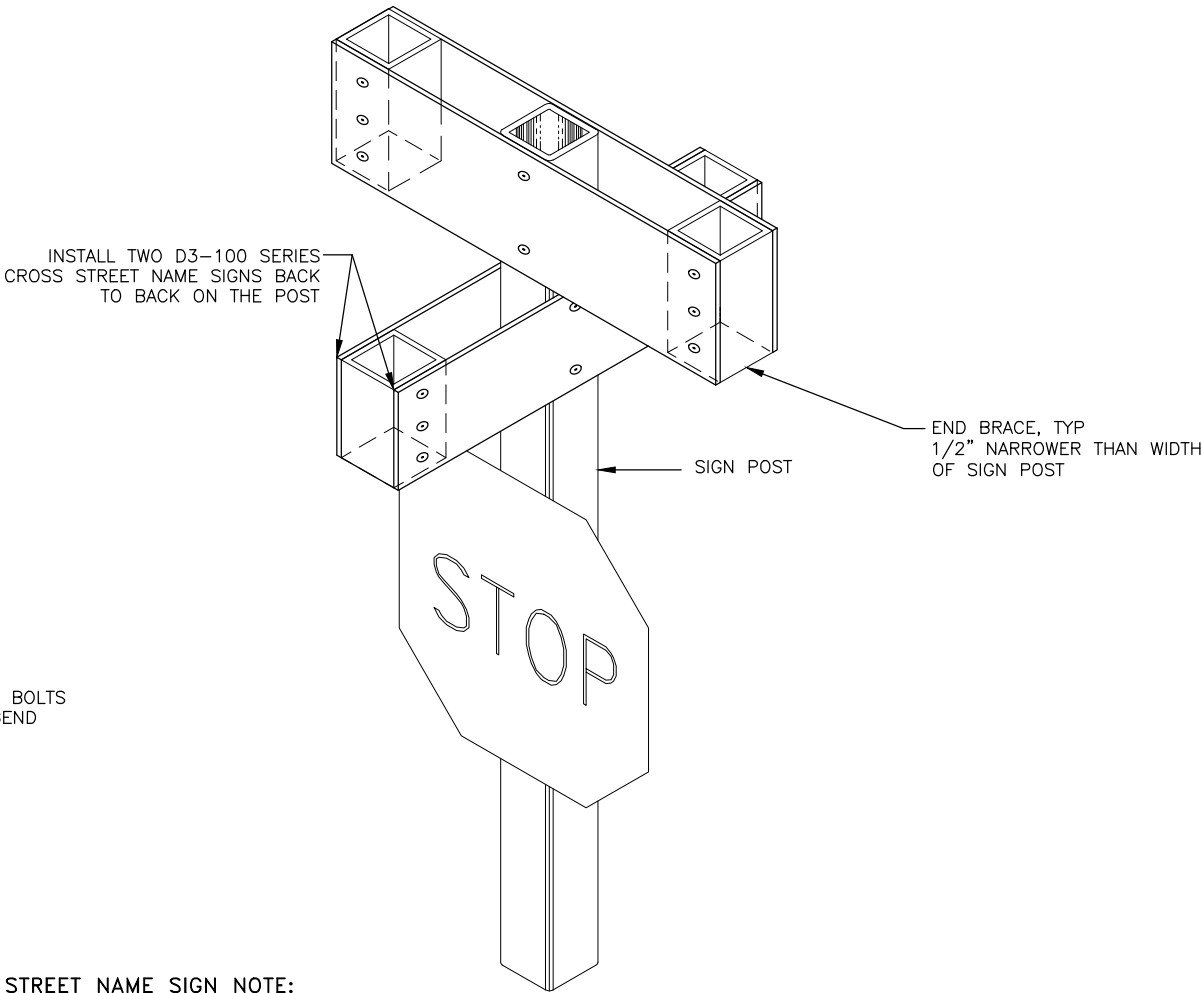


* ADJUST LOCATION OF BRACING SO THAT BOLTS
AND WASHERS WILL MISS THE SIGN LEGEND

TUBE POST SIGN BRACING
PLAN VIEW

SIGN WIDTH(W)	EFFECTIVE BRACE LENGTH		
	WARNING	YIELD	OTHER
30"	36"	24"	24"
36"	42"	30"	30"
42"	48"	—	36"
48"	Two posts	36"	42"

< 30" NO BRACING REQUIRED AND USE SQUARE TUBE

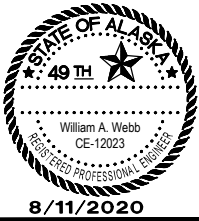


STREET NAME SIGN NOTE:

VERTICALLY SEPARATE R1-1 (STOP) SIGN AND ALL OTHER SIGN
ASSEMBLIES MOUNTED ON THE SAME POST BY 2 1/2 INCHES.

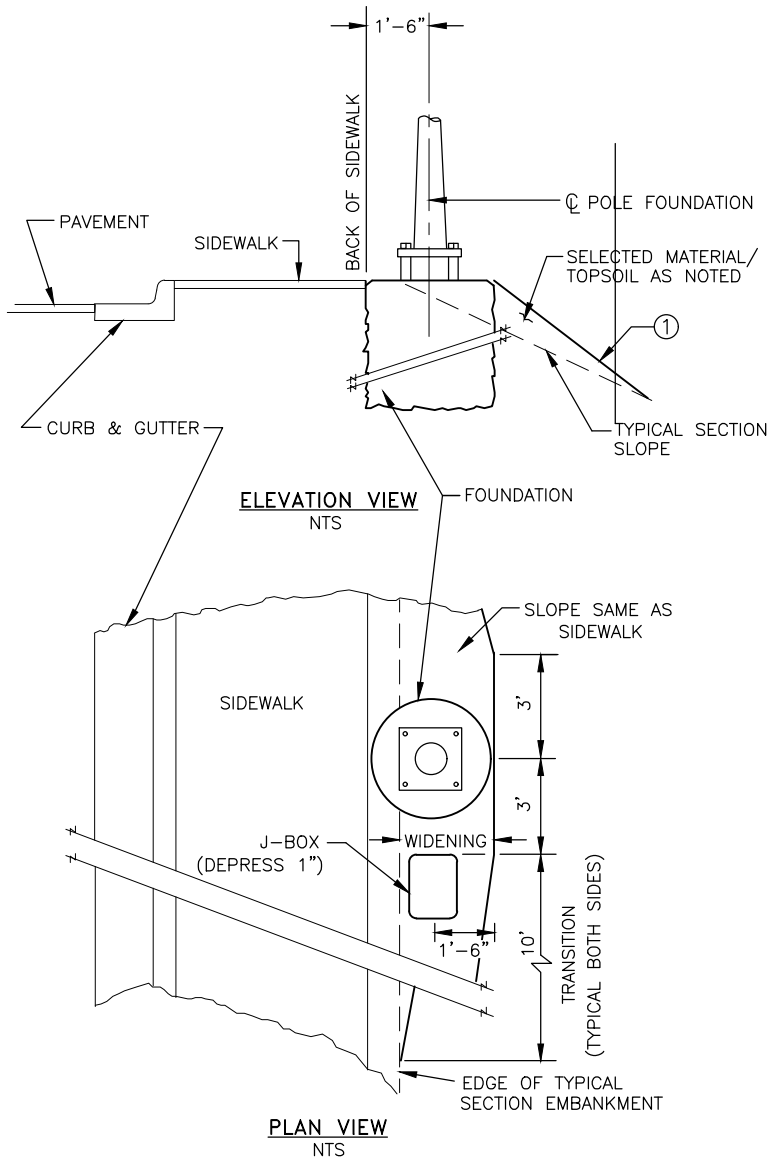
STREET NAME SIGN MOUNTING & BRACING DETAIL

SIGN BRACING DETAILS



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Z:\PROJECTS\00477_old rich intersections\DWGS\00158_H_ElectDetails-H9 Tue, Aug/11/20 12:43am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H9	H14

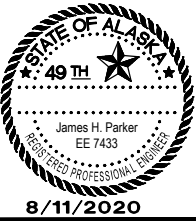


① GRADE SLOPE FROM BACK OF FOUNDATION TO TYPICAL SECTION SLOPE CATCH POINT OR DITCH LINE EXCEPT THAT THE SLOPE SHALL BE NO STEEPER THAN 1-1/2:1.

LIGHT POLE WIDENING DETAIL "A"
(USE WHEN POLE IS LOCATED BACK OF SIDEWALK)

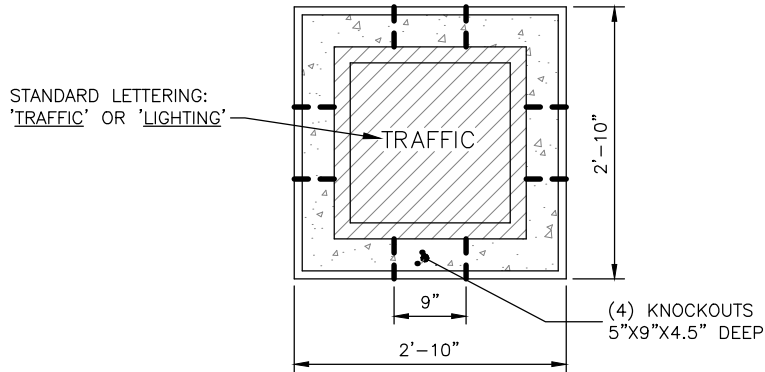
- ① WARP SLOPE TO TOP CIRCUMFERENCE OF POLE FOUNDATION
- ② SLOPE FROM TOP EDGE OF POLE FOUNDATION TO TYPICAL SECTION DITCHLINE OR NORMAL TOE OF FILL. NO STEEPER THAN 1-1/2:1.
- ③ WHEN THE TYPICAL SECTION SLOPE IS STEEPER THAN 2:1 USE 35' FOR THE SLOPE TRANSITION AREA.
- ④ DEPRESS JUNCTION BOX 1" BELOW SURFACE. DEPRESS 2" IN SEEDED AREAS.
- ⑤ WIDENING SHALL BE CONSTRUCTED PRIOR TO POURING FOUNDATION OR CONSTRUCTING STABILIZING BERM.

LIGHT POLE WIDENING

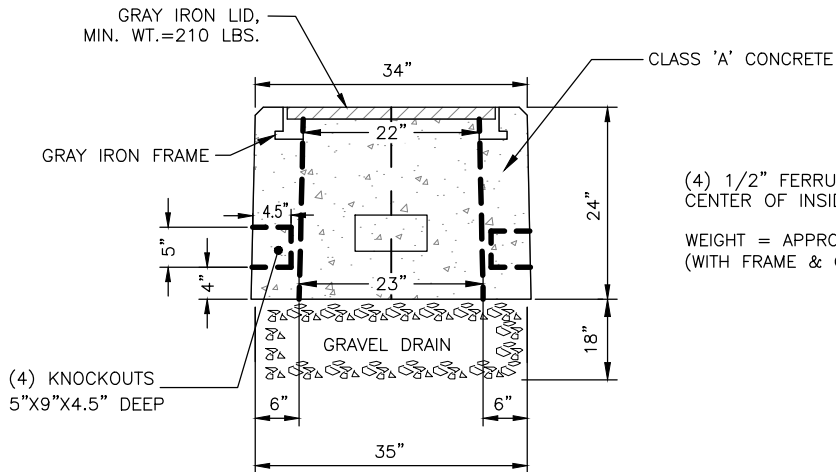


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Z:\PROJECTS\00477_old rich intersections\DWGS\c\Sheets\00158_H_ElectDetails-H11 Tue, Aug/11/20 12:44am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H11	H14

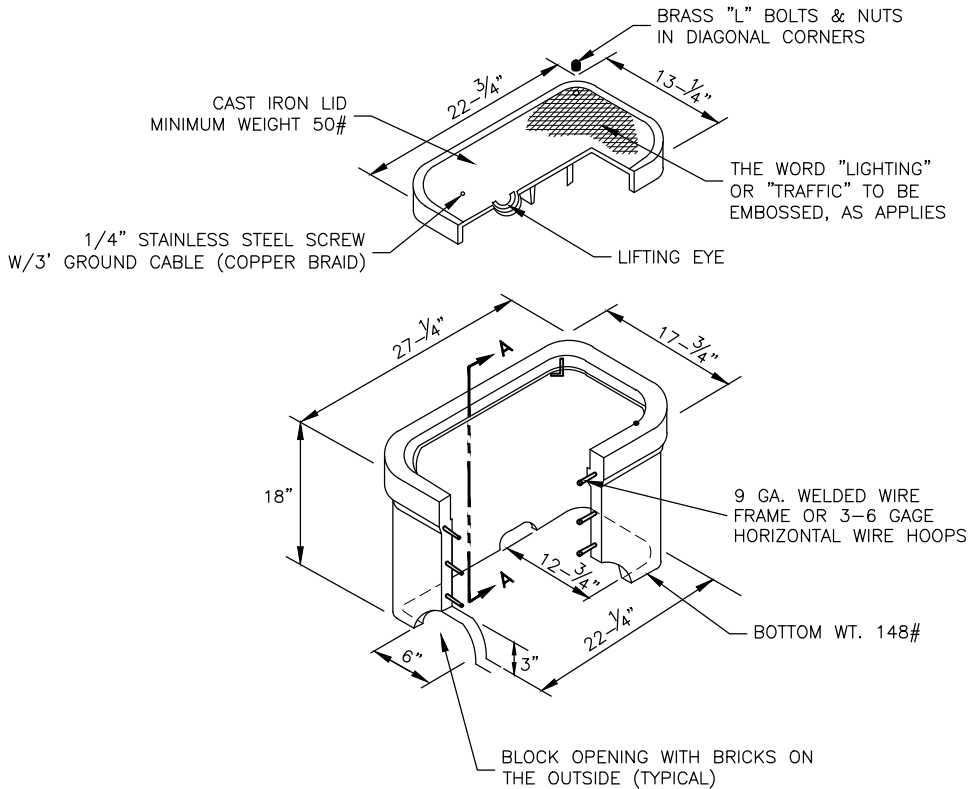


PLAN VIEW

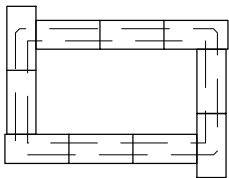


ELEVATION VIEW

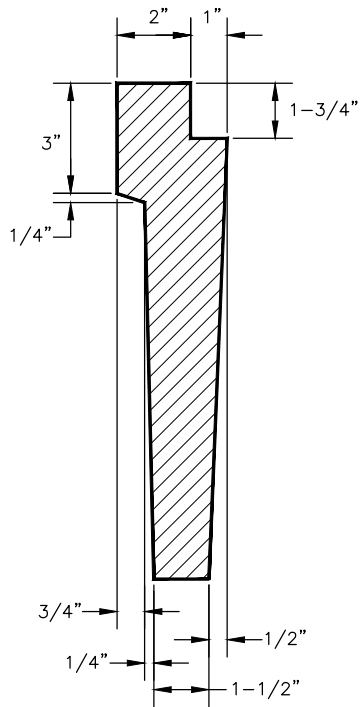
TYPE II JUNCTION BOX



TYPE 1A JUNCTION BOX DETAIL

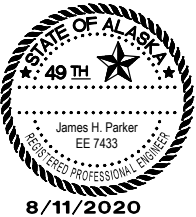


BRICK BASE DETAIL
TYPE 1A JUNCTION BOX



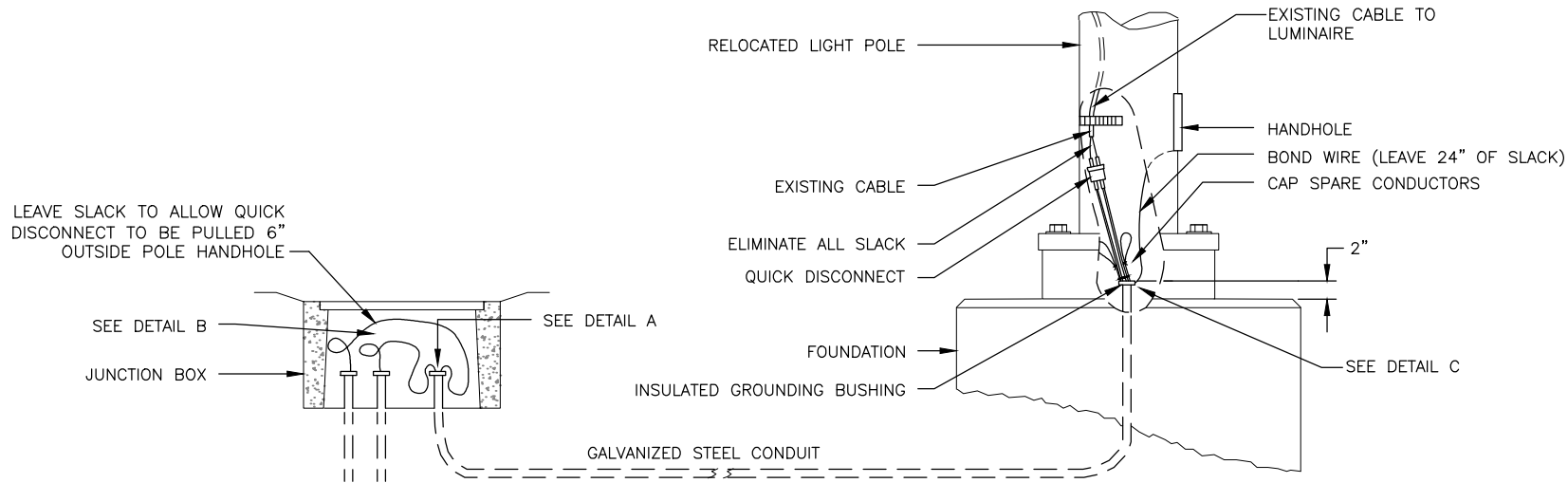
SECTION A-A

JUNCTION BOX DETAILS



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Z:\PROJECTS\00477_old rich intersections\DWGS\c\Sheets\00158_H_ElectDetails-H12 Tue, Aug/11/20 12:44am

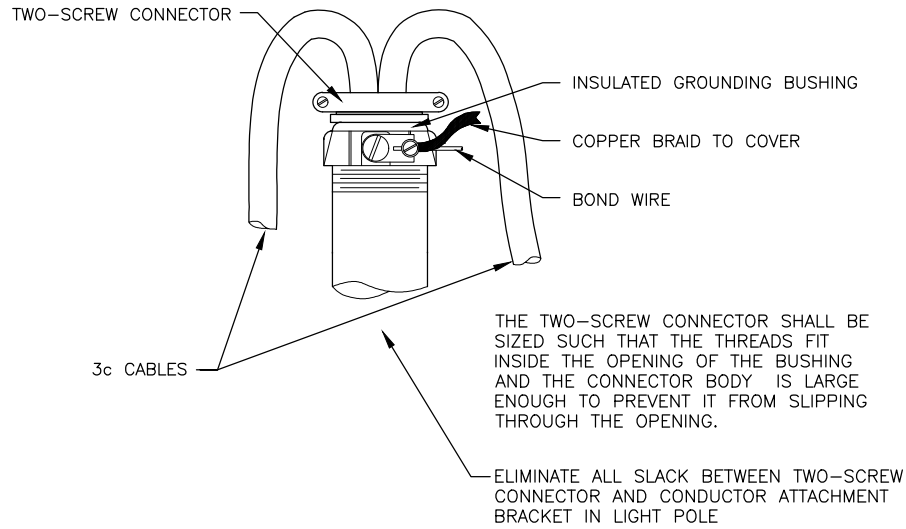
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H12	H14



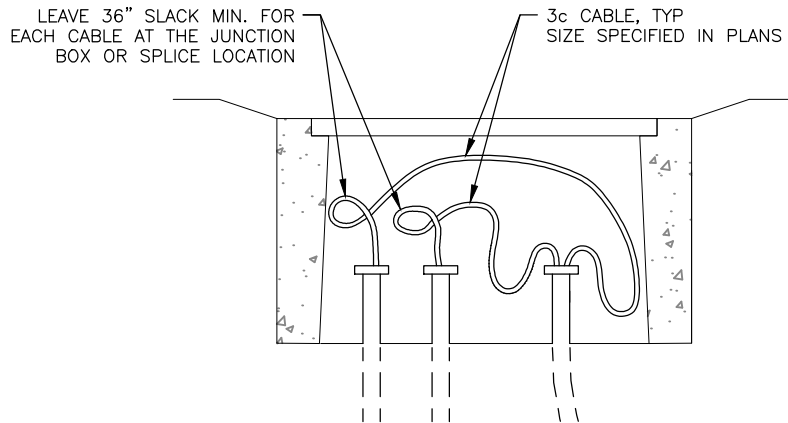
LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS
NTS

NOTES:

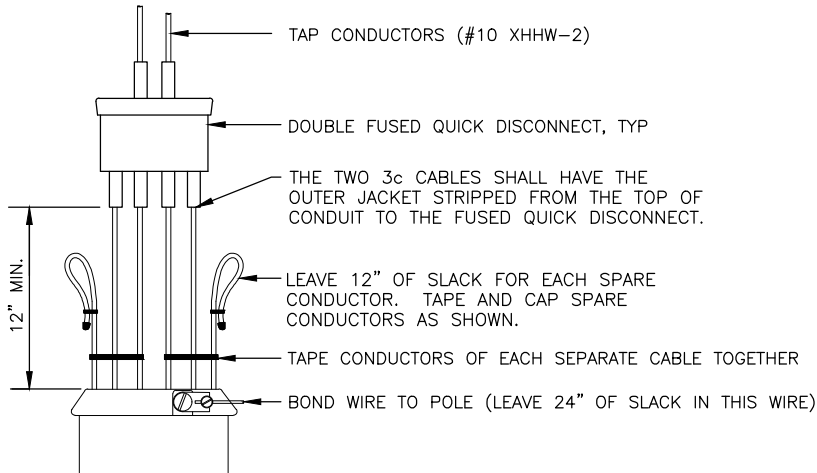
1. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX.
2. LEAVE ENOUGH SLACK ABOVE THE CONDUCTOR ATTACHMENT BRACKET TO ALLOW THE QUICK DISCONNECT TO BE PULLED 6" OUTSIDE OF HANDHOLE.
3. NOT ALL GROUNDING CONDUCTORS, AS REQUIRED BY SECTION 660-3.06, ARE SHOWN IN THESE DETAILS.



DETAIL A

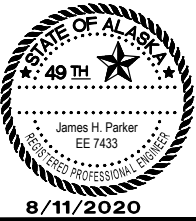


DETAIL B

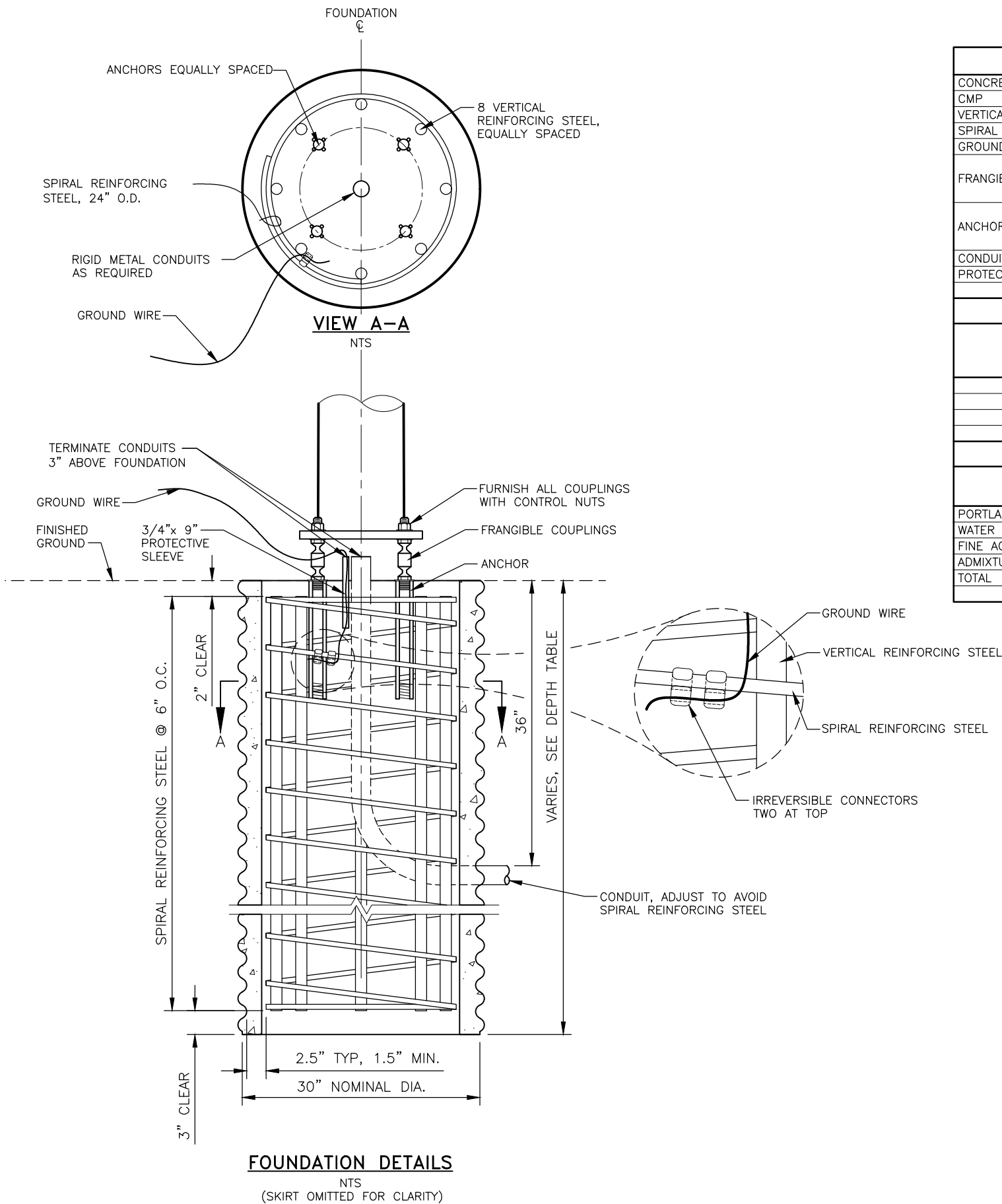


DETAIL C

WIRING DETAILS



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MATERIAL REQUIREMENTS

CONCRETE	CLASS A	F'C = 4000 PSI
CMP	AASHTO M218	14 GA.
VERTICAL REINFORCING STEEL	AASHTO M31 #11	GR 60
SPIRAL REINFORCING STEEL	AASHTO M31 #5	GR 60
GROUND WIRE		#4 awg
FRANGIBLE COUPLING	NCHRP 350 TL3 FRANGIBLE COUPLING	VU = 5.5 KIPS TU = 43.2 KIPS
ANCHOR	NCHRP 350 TL3 FRANGIBLE COUPLING ANCHOR	
CONDUIT	SCH 40	RMC
PROTECTIVE SLEEVE	SCH 40	PVC

DEPTH TABLE

GRADE	FOUNDATION DEPTH BY APPLICATION (FT.)	
	ELECTROLIER * SEE NOTE 9	BREAKAWAY TRAFFIC SIGNAL
FLAT TO 6:1	8	6
>=6:1 TO 3:1	9	7
>=3:1 TO 1.5:1	10	8

SAND SLURRY MIX DESIGN

ITEM	BATCHING QUANTITIES PER CYD BATCH (LBS.)	APPLICABLE SPECS.
PORTLAND CEMENT CONCRETE	188	701-2.01
WATER (52.1 GAL.)	435	712-2.01
FINE AGGREGATE SSD	3041	703-2.01
ADMIXTURE: MICROAIR	2.0 OZ.	711-2.02
TOTAL	3664	

BOLT CIRCLE

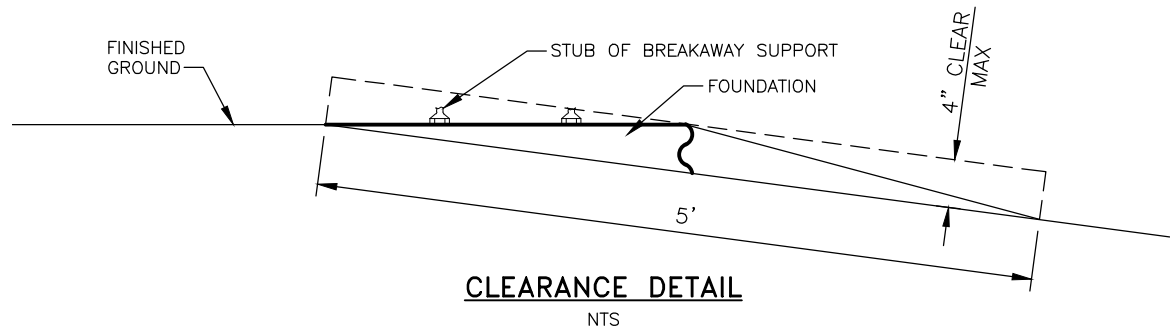
REGION	DIAMETER
NORTHERN REGION PROJECTS	14.5"

DESIGN NOTES:

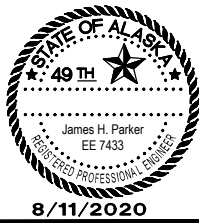
- DESIGN STANDARD: SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, LFRD 1ST EDITION, AASHTO, 2015, WITH 2017 AND 2018 INTERIM REVISIONS.
- DESIGN LOAD: 1,000 LBS AXIAL, 2,000 LBS SHEAR, 50,000 FT-LBS MOMENT.
- CONSTRUCTION STANDARD: LATEST EDITION OF THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION WITH SPECIAL PROVISIONS.

NOTES:

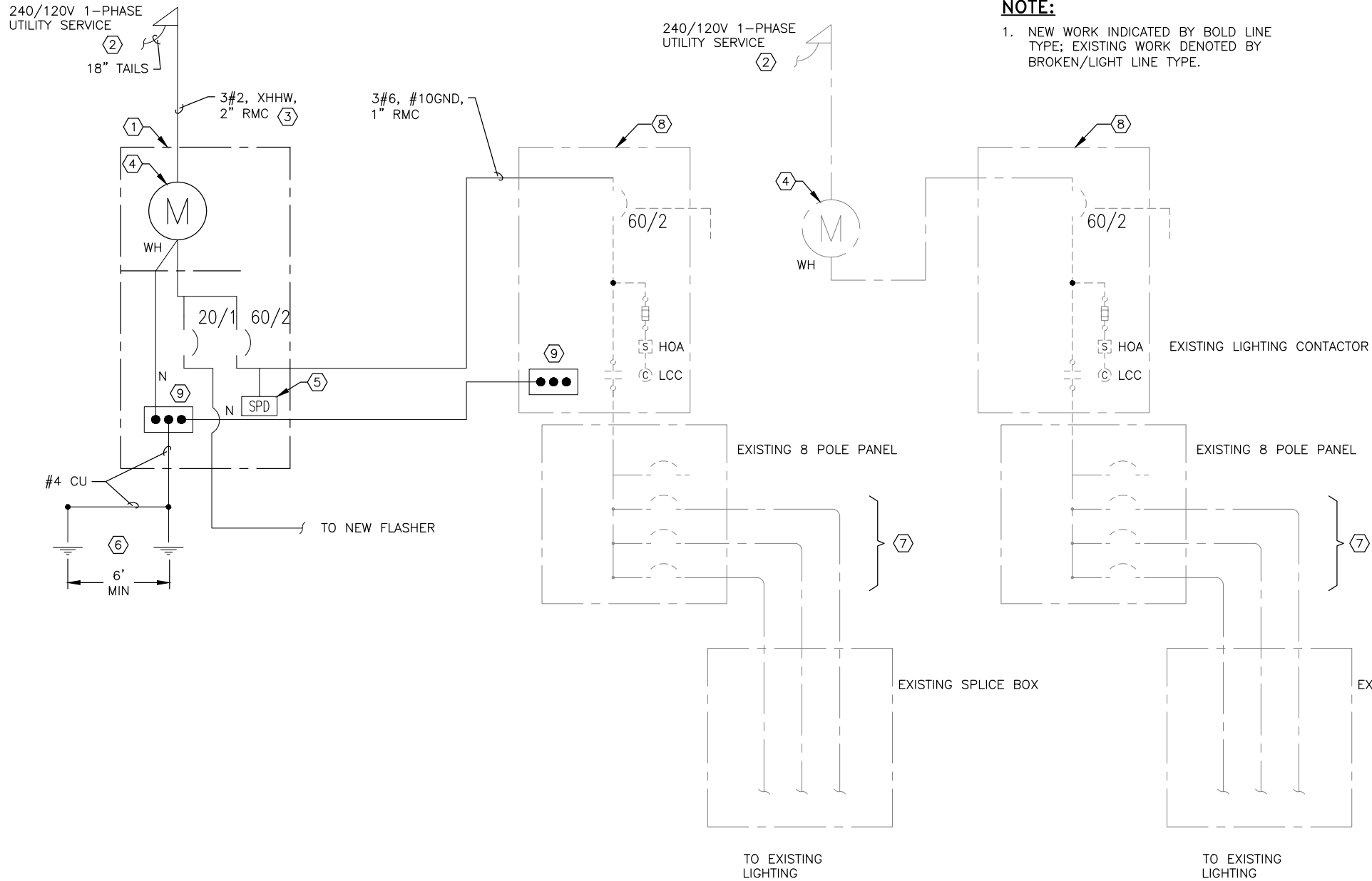
- THIS FOUNDATION IS APPROVED FOR ELECTROLIER AND BREAKAWAY TRAFFIC SIGNAL APPLICATIONS IN COHESIONLESS SOILS WITH AN N1-60 VALUE OF 10 OR GREATER PER AASHTO T-206, "STANDARD PENETRATION TEST" (SPT). THIS FOUNDATION SHALL NOT BE USED IF ANY OF THE FOLLOWING ARE ENCOUNTERED; WATER TABLE ABOVE THE BOTTOM OF FOUNDATION, VERY LOOSE SOILS, ORGANIC SOILS, COHESIVE SOILS (CLAY), OR SOILS SUSCEPTIBLE TO FROST JACKING. IF ANY OF THESE CONDITIONS ARE ENCOUNTERED, STOP FOUNDATION WORK AND CONTACT THE ENGINEER.
- PLACE FOUNDATION IN DRILLED OR EXCAVATED HOLE WITH CENTERLINE OF FOUNDATION LOCATED AT THE STATION, OFFSET, AND ELEVATION SPECIFIED IN PLANS. SET FOUNDATION TO SATISFY THE CONDITIONS DEPICTED IN CLEARANCE DETAIL.
- FORM THE FOUNDATION IN CORRUGATED METAL PIPE CONFORMING TO SUBSECTION 707-2.01 OF THE SPECIFICATIONS.
- PROVIDE 1.5 EXTRA TURNS AT EACH END OF THE SPIRAL REINFORCING STEEL. REINFORCING STEEL SHALL NOT BE SPLICED. TIE VERTICAL REINFORCING STEEL TO EACH INTERSECTION OF THE SPIRAL REINFORCING STEEL.
- CONNECT GROUND WIRE NEAR THE TOP OF SPIRAL REINFORCING STEEL WITH TWO IRREVERSIBLE CONNECTORS AS SHOWN. FASTEN CONNECTORS ACCORDING TO THE MANUFACTURERS' RECOMMENDATIONS INCLUDING THE USE OF MANUFACTURER SPECIFIED TOOLS. THE GROUND WIRE MAY BE BARE SOLID, STRANDED, OR BRAIDED COPPER. PROTECT GROUND WIRE WITH PROTECTIVE SLEEVE AS SHOWN AND FILL WITH SILICON SEALANT.
- COMPLETE ALL CONCRETE WORK IN CONFORMANCE WITH SECTIONS 501, 503, AND 660 OF THE SPECIFICATIONS. USE A TUBE WITH A HOPPER HEAD OR OTHER APPROVED DEVICE WHEN DROPPING CONCRETE MORE THAN 5 FEET PER SUBSECTION 501-3.08. VIBRATE CONCRETE DURING PLACEMENT BY MECHANICAL VIBRATION PER SUBSECTION 501-3.08. ENSURE ANCHOR THREADS ARE PROTECTED FROM CONTACT WITH CONCRETE DURING POUR.
- BACKFILL AND COMPACT ACCORDING TO SECTION 205, AND SUBSECTIONS 203-3.04 AND 660-3.01 OF THE SPECIFICATIONS. USE SELECT MATERIAL, TYPE A OR SAND SLURRY AS BACKFILL MATERIAL. ENSURE AREA BELOW FOUNDATION MEETS COMPACTION REQUIREMENTS AND IS FREE OF LOOSE MATERIAL AND DEBRIS PRIOR TO CONCRETE WORK.
- INSTALL ALL ANCHORS ACCORDING TO THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PLUMB. ANCHORS GREATER THAN 1:40 OUT-OF-PLUMB WILL RESULT IN FOUNDATION REJECTION.
- WHEN USED FOR ELECTROLIER REDUCE THE FOUNDATION DEPTH 1 FOOT WHEN THERE IS NO LUMINAIRE ARM OR THE LUMINAIRE ARM IS LESS THAN OR EQUAL TO 12 FEET.
- GRADE IN DEPTH TABLE REFERS TO FILL SLOPES. IF FOUNDATION IS IN A CUT SLOPE ASSUME FLAT GRADE IN TABLE. TO DETERMINE GRADE IN FILL SLOPES, USE THE MOST SEVERE GRADE FOUND WITHIN AN 8 FOOT RADIUS OF THE CENTER OF THE FOUNDATION. SLOPES STEEPER THAN 1.5:1 REQUIRE ENGINEERED DEPTH CALCULATION.



LIGHT POLE FOUNDATION DETAIL



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old rich intersections\DWGS\00158_H_ElectDetails-H14 Tue, Aug/11/20 12:44am



NEW LOAD CENTER ONE-LINE DIAGRAM

EXISTING LOAD CENTER ONE-LINE DIAGRAM

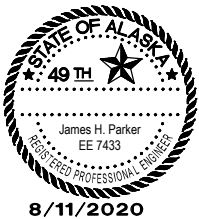
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	H14	H14

NOTES:

- PROVIDE NEW 200AMP METER BASE WITH TWO BREAKERS AS SHOWN, TO COMPLY WITH SSHC SPECS, UTILITY REQUIREMENTS, AND AS FOLLOWS:
 - APPROXIMATE DIMENSIONS FOR MOUNTING IN EXISTING SPACE: 30"H X 15"W X 6"D.
 - PROVIDE KNOCKOUT SEAL NEXT TO NEW 20/1 AS REQUIRED.
 - PROVIDE 10,000 AIC RATED METER BASE.
- COORDINATE WITH UTILITY AND INCLUDE ALL FEES FOR SERVICE DISCONNECT, RECONNECT, AND INSPECTIONS AS REQUIRED.
- CONTRACTOR OPTION TO REUSE EXISTING 2" RMC RISER AND WEATHERHEAD, SUBJECT TO UTILITY REQUIREMENTS.
- METER TO REMAIN ON SAME ACCOUNT AS EXISTING LOAD CENTER.
- PROVIDE INTERNALLY MOUNTED SURGE PROTECTIVE DEVICE (SPD). UL 1449 LISTED, NEMA 4X WITH LED STATUS INDICATORS. 120/240V, 1-PH, 3W, 25KA SCCR, 34KA PEAK SUREGE CURRENT RATING PER PHASE. SPD INDICATORS SHALL BE VISIBLE ON DEAD FRONT.
- PROVIDE TWO 5/8" X 8' ROD ELECTRODES.
- REFER TO LOAD CENTER SUMMARY AND PLANS FOR DISTRIBUTION CIRCUIT REQUIREMENTS.
- EXISTING LIGHTING CONTACTOR TO REMAIN. RECONNECT TO NEW BREAKER IN THE METER BASE.
- SEPARATE GROUND AND NEUTRAL CONNECTION IN EXISTING CONTACTOR. ESTABLISH NEW BONDING POINT IN THE NEW METER BASE.

EXISTING LOAD CENTER SUMMARY									
LOAD CENTER TAG: LCN6		TYPE: 3		UTILITY SOURCE: 25 KVA TRANSFORMER					
LOCATION: 5TH AVE, 11+73, 46' LT		SERVICE: 100 AMP, 240/120 VOLT, 1-PH, 3W						MAX. AVAILABLE FAULT CURRENT: XXXX AMPS	
REMARKS: NEW EQUIPMENT ON EXISTING POLE		MAIN CIRCUIT BREAKER: 100 AMP, 2-POLE, 240/120 VOLT							
DISTRIBUTION CIRCUITS:				INTERRUPTING RATING: 10,000 AMP					
CKT. NO.	DESCRIPTION	CIRCUIT BREAKER		VA / PHASE					
		TRIP /	# POLES	A	B				
LCN6-1	PHOTOCELL CONTACTOR LCN6	60 AMP	2P	X	-	NOTE 2, 3			
	EXISTING STREET LIGHTS			-	X				
LCN6-2	LED STOP SIGN	15 AMP	1P	25	-				
	SPACE			-					
	SPACE				-				
	SPACE			-					
	SPACE			-					
	SPACE			-					
PHASE VA TOTAL:				XX	XX				
CONNECTED TOTAL:				XX	KVA	XX	AMP		
DEMAND TOTAL:				XX	KVA	XX	AMP		
NOTES:									
1. INCLUDE SURGE PROTECTIVE DEVICE ON LOAD SIDE OF MAIN BREAKER.									
2. LED STOP SIGN: 20W									
3. PROVIDE ACCESSORY LOCK-OFF DEVICE FOR CIRCUIT BREAKER.									

LOAD CENTER DETAILS



8/11/2020

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old_rich_intersections\DWGS\C\Sheets\00158_Q_ESCP-Q1 Tue, Aug/11/20 12:44am

SITE INFORMATION:

1. FOR GENERAL LOCATION MAP SEE VICINITY MAP ON SHEET A1 AND USGS FAIRBANKS C-1 NW AND D-1 SW QUADRANGLES, T2S, R2E, SECTION 9, FAIRBANKS MERIDIAN. 64° 44' 57.0 N, 147° 21' 8.3 W, VIA GOOGLE EARTH.
2. SITE FUNCTION: ROAD AND PEDESTRIAN PATHWAY.
3. AVERAGE ANNUAL PRECIPITATION: 10.53 INCHES (SOURCE: WESTERN REGIONAL CLIMATE CENTER) FOR FAIRBANKS WSO AIRPORT.
4. 2-YEAR, 24-HOUR RAINFALL EVENT: 1.10 INCHES (SOURCE: NOAA ATLAS 14, VOLUME 7, VERSION 2) FOR NORTH POLE
5. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATIONS FOR STOCKPILING MATERIAL AND STAGING AND STORING EQUIPMENT. STAGING AND STOCKPILE AREAS MUST COMPLY WITH CGP, SWPPP, SECTION 641, AND ALL PERMITS.
6. PROJECT AREAS ARE LISTED BELOW (MATERIAL SITES NOT INCLUDED):

PROJECT INFORMATION TABLE	
PROJECT AREA (ACRE)	5.69
DISTURBED AREA (ACRE)	0.42
PRE-CONSTRUCTION IMPERVIOUS AREA	36%
POST-CONSTRUCTION IMPERVIOUS AREA	37%
PRE-CONSTRUCTION RUNOFF COEFFICIENT	0.61
POST-CONSTRUCTION RUNOFF COEFFICIENT	0.60

7. LANDSCAPE TOPOGRAPHY: ROADWAY IS RAISED ABOVE THE FLAT SURROUNDING AREA, WITH EMBANKMENT SLOPES VARYING FROM GENTLE (<10:1) TO 2:1. LAND COVER OF ROAD EMBANKMENT AND DITCHES VARY FROM GRAVEL TO GRASSES, LOW SHRUBS, AND TREES.
8. DRAINAGE PATTERNS: EXISTING DRAINAGE ALONG OLD RICHARDSON HWY, 5TH AVE, AND 8TH AVE CONSIST OF DIRECT RUNOFF FROM CENTERLINE CROWN ROADWAY ACROSS ROADWAY SHOULDERS INTO ADJACENT DITCHES, WITH SHORT, INTERMITTENT SECTIONS OF CURB AND GUTTER. EXISTING DRAINAGE ALONG SANTA CLAUS LN CONSIST OF RUNOFF FROM CENTERLINE CROWN ROADWAY INTO CONTINUOUS CURB AND GUTTER SYSTEMS. PROPOSED DRAINAGE FOR 8TH AVE AND 5TH AVE WILL REGRADE CENTERLINE CROWN ROADWAY NEAR THE RAILROAD CROSSINGS TO PROVIDE CONTINUOUS CROSS-SLOPING TO THE SOUTH, DIRECTING DRAINAGE AWAY FROM THE PROPOSED CURB AND GUTTER INSTALLMENTS.
9. SOILS: WELL SORTED ALLUVIAL SAND AND GRAVEL DEPOSITS OVERLAIN WITH SILT AND SILTY ORGANIC SOILS.
10. EXISTING VEGETATION: DITCHES ALONG THE PROJECT AREA ARE OVERGROWN WITH GRASSES AND SHRUBS, WITH SOME STANDS OF TREES WITHIN THE ALASKA RAILROAD CORPORATION (ARRC) CORRIDOR. ADJACENT PROPERTIES INCLUDE TREES AND SHRUBS ON UNDEVELOPED LOTS, AND INCLUDE LAWN GRASSES ON DEVELOPED LOTS.
11. APPROXIMATE GROWING SEASON: MAY 3 THROUGH OCTOBER 3 (SOURCE: USACE WETLANDS DELINEATION MANUAL: ALASKA REGION (VERSION 2). APPROXIMATE SPRING THAW AND FALL FREEZE DATES: JUNE 8 AND AUGUST 29 (SOURCE: <http://www.wrcc.dri.edu/summary/Climsmak.html>).

ENVIRONMENTAL INFORMATION:

1. RECEIVING WATERS: ALONG RICHARDSON HWY AND ARRC CORRIDOR, RUNOFF ENTERS ADJACENT DITCHES AND INFILTRATES. ALONG 5TH AVE, RUNOFF MAY TRAVEL VIA CURB AND GUTTER SYSTEM AND ENTER THIRTYMILE SLOUGH, 0.2 MILES EAST OF THE PROJECT AREA.
2. IMPAIRED WATERS: NONE
3. TOTAL MAXIMUM DAILY LOADS (TMDL): NONE
4. STORM SEWER/DRAINAGE SYSTEMS: NONE
5. THREATENED AND ENDANGERED SPECIES: NONE
6. HISTORICAL & CULTURAL RESOURCE PRESENCE: NONE (NO PROPERTIES IN NORTH POLE ARE LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES).
7. TIME VEGETATION CLEARING TO COMPLY WITH THE MIGRATORY BIRD ACT. VEGETATION CLEARING WILL NOT BE ALLOWED DURING THE BIRD NESTING WINDOW, TYPICALLY MAY 1 - JULY 15, UNLESS A NEST SURVEY IS COMPLETED AND CONFIRMED THAT NO NESTS OR BIRDS WILL BE TAKEN.
8. EXISTING PUBLIC WATER SYSTEM (PWS) DRINKING WATER PROTECTION AREAS: THIS PROJECT IS NOT LOCATED IN A PWS DRINKING WATER PROTECTION AREA. THE NEAREST EXISTING PWS DRINKING WATER PROTECTION AREAS ARE LOCATED APPROXIMATELY 0.5 MILES TO THE EAST AND INCLUDE PWSIDs AK2312504 AND AK2312457
9. DEWATERING OF GROUNDWATER AND/OR STORMWATER THAT ACCUMULATES IN AN EXCAVATION AREA WITHIN 1,500 FT OF A DEC-IDENTIFIED CONTAMINATED SITE REQUIRES AN EXCAVATION DEWATERING PERMIT FROM DEC.

THE FOLLOWING DEC IDENTIFIED CONTAMINATED SITES ARE LOCATED WITHIN 1,500 FEET OF THE PROJECT AREA:

• HAZARD ID 3222;

• HAZARD ID 3815;

• HAZARD ID 24821;

• HAZARD ID 24999;

• HAZARD ID 4439;

• HAZARD ID 2913;

• HAZARD ID 3229;

• HAZARD ID 2309;

• HAZARD ID 3954;

• HAZARD ID 25469;

• HAZARD ID 23415;

• HAZARD ID 25702;

• HAZARD ID 24299;

FILE NUMBER 100.38.158;

FILE NUMBER 100.38.090;

FILE NUMBER 100.26.170;

FILE NUMBER 100.26.173;

FILE NUMBER 100.38.216;

FILE NUMBER 100.38.126;

FILE NUMBER 100.38.137;

FILE NUMBER 100.38.087;

FILE NUMBER 100.38.174;

FILE NUMBER 100.38.224;

FILE NUMBER 100.26.080;

FILE NUMBER 100.26.212;

FILE NUMBER 100.26.299;

STATUS: CLEANUP COMPLETE - NO INSTITUTIONAL CONTROLS (IC'S) REQUIRED

STATUS: ACTIVE

STATUS: CLEANUP COMPLETE - NO IC'S REQUIRED

STATUS: CLEANUP COMPLETE - NO IC'S REQUIRED

STATUS: ACTIVE

STATUS: CLEANUP COMPLETE - NO IC'S REQUIRED

STATUS: CLEANUP COMPLETE - IC'S REQUIRED

STATUS: CLEANUP COMPLETE - NO IC'S REQUIRED

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STATUS: CLEANUP COMPLETE - NO IC'S REQUIRED

STATUS: CLEANUP COMPLETE - IC'S REQUIRED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	Q1	Q3

ESCP NOTES:

1. THE WORK RESULTS IN LESS THAN 1 ACRE OF GROUND DISTURBANCE AND WILL NOT REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
2. THIS EROSION SEDIMENT CONTROL PLAN (ESCP) PROVIDES GENERAL INFORMATION FOR MINIMIZING EROSION AND TRANSPORT OF SEDIMENT. THE SHEETS ARE PROVIDED AS GUIDANCE FOR THE DEVELOPMENT OF THE:

- MORE FULLY DEVELOPED ESCP

- HAZARDOUS MATERIAL CONTROL PLAN (HMCP)

- SPILL PREVENTION, CONTROL AND COUNTERMEASURES (SPCC) PLAN
3. SELECT AND IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICE CONTROLS (BMPS) BASED ON SITE SPECIFIC CONDITIONS, CONTRACTOR'S SCHEDULE, AND CONSTRUCTION METHODS.
4. INSTALLATION AND MAINTENANCE OF BMPS SHALL BE IN ACCORDANCE WITH THE DOT&PF ALASKA SWPPP GUIDE (FEBRUARY 2011 OR LATEST VERSION) OR OTHER APPROVED BMP GUIDANCE DOCUMENT AS-APPROVED BY THE ENGINEER. IF APPLICABLE, INSTALLATION AND MAINTENANCE SHALL ALSO BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. INITIATE EROSION AND SEDIMENT CONTROLS PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
6. MINIMIZE THE AMOUNT OF DISTURBED AREA OPEN TO EROSION AT ANY ONE TIME.
7. STABILIZATION SHALL OCCUR AS EACH EARTH DISTURBING ACTIVITY IS COMPLETED IN ANY AREA. TEMPORARY STABILIZATION SHALL BE INSTALLED UNTIL PERMANENT STABILIZATION IS ACHIEVED.
8. ALL DISTURBED GROUND CAPABLE OF SUPPORTING VEGETATION MUST BE RE-VEGETATED FOR FINAL STABILIZATION. FINAL STABILIZED AREAS NOT RE-VEGETATED MUST BE 100% COVERED BY ROCK OR OTHER PERMANENT NON-ERODIBLE MATERIAL. ATTAINMENT OF FINAL STABILIZATION WILL BE AS APPROVED IN THE FIELD BY THE ENGINEER.
9. PROVIDE VEHICLE CLEANING EQUIPMENT, OR OTHER APPROVED CONTROLS, TO PREVENT TRACKING DIRT AND GRAVEL ONTO PAVED SURFACES.
10. ENSURE LOADS ARE STABLE AND COVERED SO THAT NO MATERIAL ESCAPES DURING HAULING ACTIVITIES.
11. SWEEP STREET SURFACES ADJACENT TO THE WORK AREA DAILY TO COLLECT ANY SEDIMENT OR OTHER CONSTRUCTION DEBRIS TRACKED OFFSITE.
12. DESIGNATE A CONCRETE WASHOUT AREA ONSITE, AS NECESSARY, TO CONTAIN THE WASHOUT WATER AND RESIDUALS DURING CONCRETE WORK.
13. HAVE A SPILL KIT AVAILABLE AT EACH WORK AREA WHEN HEAVY EQUIPMENT IS BEING UTILIZED.
14. RECLAIM STOCKPILE AND STAGING LOCATIONS TO THEIR ORIGINAL CONDITION. STOCKPILES AND/OR STAGING AREAS ARE NOT ALLOWED IN WETLANDS.
15. PERMANENTLY STABILIZE ALL DISTURBED GROUND.
16. WHEN CLEARING TO PLACE PERIMETER CONTROL BMPS, MINIMIZE DISTURBANCE ACTIVITIES TO PRESERVE EXISTING VEGETATION TO THE MAXIMUM EXTENT POSSIBLE. RESTORE DISTURBED VEGETATIVE BUFFER TO PRE-CONSTRUCTION CONDITIONS.
17. INSTALL PERIMETER CONTROL BMPS WHEN WORKING WITHIN 25 FEET OF SURFACE WATERS AND ALONG WETLANDS WHERE A 25-FOOT VEGETATIVE BUFFER IS NOT RETAINED.
18. TEMPORARY BMPS REQUIRED BY THIS ESCP WILL NOT BE MEASURED FOR PAYMENT AND ARE SUBSIDIARY TO 641 PAY ITEMS.

PERIMETER CONTROL:

1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. UTILIZE VEGETATIVE BUFFERS, FIBER ROLLS, SILT FENCE, OR OTHER METHODS APPROPRIATE FOR THE SITE CONDITIONS.
2. WHERE POSSIBLE, PROVIDE A 30-FT VEGETATIVE BUFFER BETWEEN SENSITIVE AREAS AND CONSTRUCTION LIMITS. IF UNABLE TO MAINTAIN VEGETATIVE BUFFER, USE FIBER ROLLS TO PREVENT SEDIMENT FROM ENTERING SENSITIVE AREAS.
3. PERIMETER CONTROLS ARE SHOWN ON ATTACHED FIGURES IN LOCATIONS WHERE VEGETATED BUFFER IS NOT EXPECTED TO BE SUFFICIENT. CONTRACTOR SHALL UPDATE PERIMETER CONTROL LOCATIONS BASED ON ACTUAL FIELD CONDITIONS.

STOCKPILE AND STAGING AREAS:

1. ALL ERODIBLE STOCKPILES MUST BE PROTECTED BY EROSION AND SEDIMENT CONTROL DEVICES.
2. COVER MUST BE USED ON STOCKPILES IN ACCORDANCE WITH SUBSECTION 641-3.01.5 TO PROVIDE ADDITIONAL EROSION PROTECTION.
3. STOCKPILE AND STAGING LOCATIONS MUST BE RECLAIMED TO THEIR ORIGINAL CONDITION AS APPROVED BY THE ENGINEER. NO STOCKPILE OR STAGING AREAS ARE ALLOWED IN WETLANDS.

ESCP LEGEND:

PERIMETER CONTROL

APPROXIMATE LIMITS OF GROUND DISTURBANCE

STABILIZED CONSTRUCTION ENTRANCE/EXIT

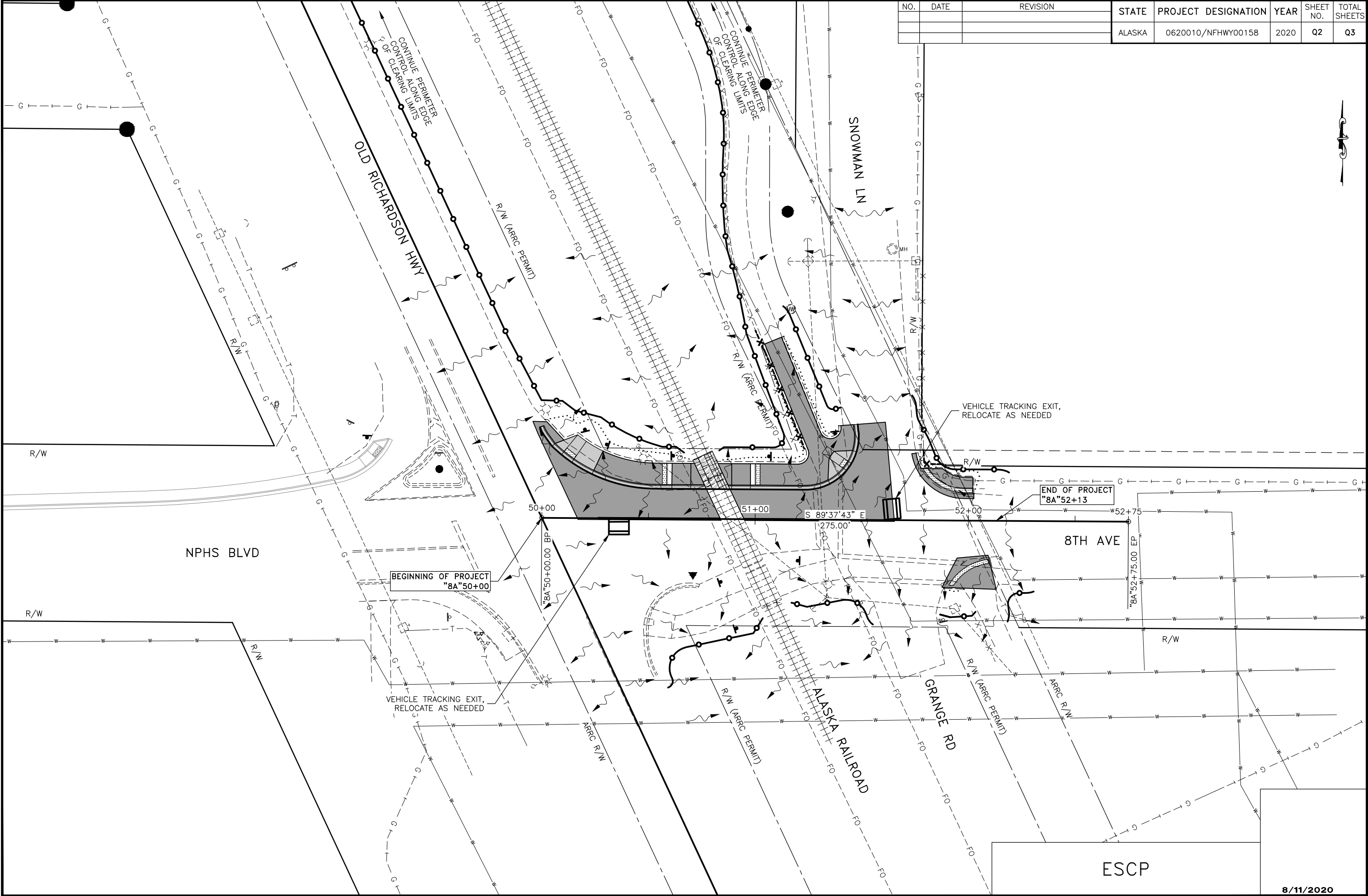
FLOW DIRECTION (POST CONSTRUCTION)

ESCP

8/11/2020

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old rich intersections\DWGS\00158_Q_ESCP-02 Tue, Aug/11/20 12:44am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	Q2	Q3

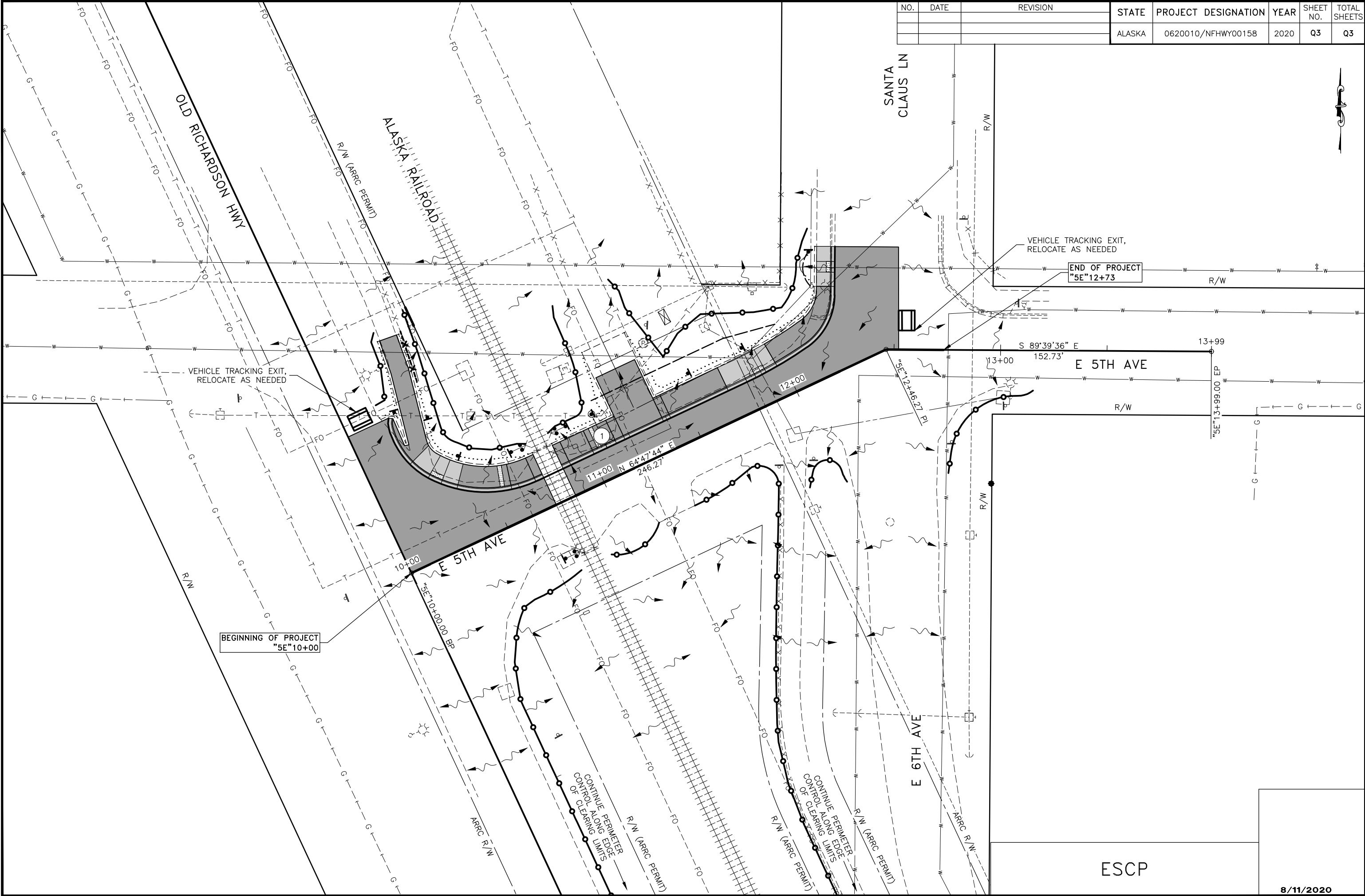


ESCP

8/11/2020

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	Q3	Q3



ESCP

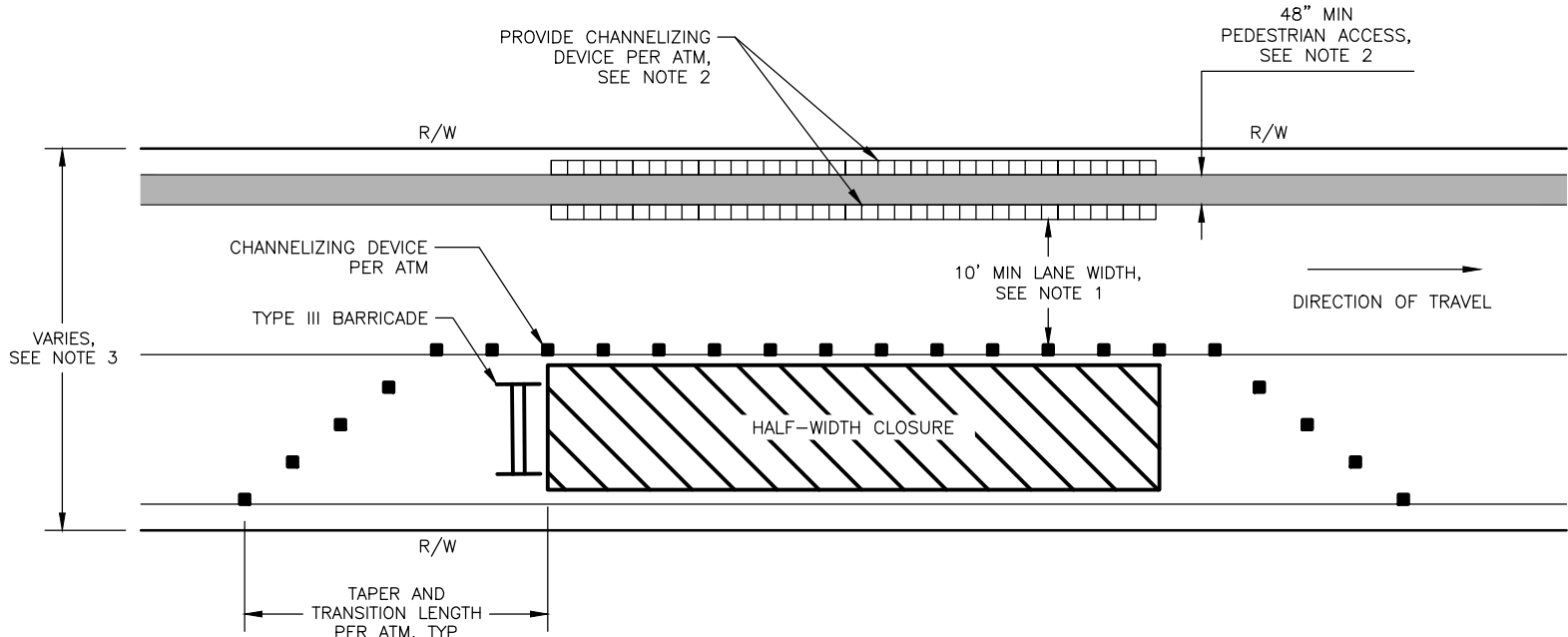
8/11/2020

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Z:\PROJECTS\00477_old rich intersections\DWGS\00158_I_TrafficControl-T1 Tue, Aug/11/20 12:45am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	T1	T3

GENERAL TRAFFIC CONTROL PLAN NOTES

- THIS IS A GENERALIZED TRAFFIC COTRNOL PLAN (TCP) TO SHOW ALLOWABLE LANE CLOSURES, ROAD CLOSURES, AND DETOUR ROUTES, AND LOCATIONS FOR PORTABLE CHANGEABLE MESSAGE BOARD SIGNS (CMS). THE CONTRACTOR SHALL DEVELOP AN APPROVED TCP AND AN APPROVED CONSTRUCTION PHASING PLAN IN ACCORDANCE WITH THIS PLAN AND SECTION 643 OF THE PROJECT SPECIFICATIONS.
- DRIVEWAYS ADJACENT TO AN EXCAVATION SHALL BE RAMPED TO PROVIDE ACCESS.
- TCPs THAT REQUEST CLOSURE OF ANY RESIDENTIAL OR COMMERCIAL ACCESS SHALL BE SUBMITTED FOR APPROVAL IN ACCORDANCE WITH SECTION 643. ANY ACCESS CLOSURE SHALL NOT OCCUR WITHOUT WRITTEN APPROVAL OF THE ENGINEER. COORDINATE CLOSURE PLANS WITH THE AFFECTED PROPERTY OCCUPANT AND/OR OWNER. THE CONTRACTOR SHALL NOTIFY THE AFFECTED PROPERTY A MINIMUM OF 48 HOURS PRIOR TO IMPELEMENATION OF AN APPROVED ACCESS CLOSURE.
- PROVIDE ACCESS THROUGH THE PROJECT FOR EMERGENCY VEHICLES.
- PROVIDE PUBLIC NOTICE OF DETOURS AND CLOSURES IN ACCORDANCE WITH SECTION 643.
- BEFORE BEGINNING WORK WITHIN THE PROJECT LIMITS, ERECT TRAFFIC CONTROL DEVICES REQUIRED BY THE APPROVED TCP.
- PROVIDE TRAFFIC CONTROL DEVICES MEETING THE REQUIREMENTS OF SECTION 643.
- EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION SIGNS SHALL BE COVERED. COORDINATE REMOVAL WITH CITY OF FAIRBANKS PUBLIC WORKS.
- CONSTRUCTION SIGNS MAY NOT BE PLACED ON PORTABLE SIGN SUPPORTS FOR MORE THAN THREE CONSECUTIVE CALENDAR DAYS. SIGNS REQUIRED LONGER THAN THIS PERIOD SHALL BE MOUNTED ON A PERMANENT SIGN POST WITH THE EXCEPTION OF PEDESTRIAN TRAFFIC CONTROL SIGNS AND SIGNS MOUNTED ON A TYPE III BARRICADE WHICH MAY BE INSTALLED ON PORTABLE SIGN SUPPORTS FOR THE DURATION OF THEIR INSTALLATION.
- SPECIAL CONSTRUCTION SIGNS SHALL BE FABRICATED OF MATERIALS CONFORMING TO SECTION 615 OF THE SPECIFICATIONS AND SHALL HAVE A BLACK LEGEND ON ORANGE BACKGROUND.
- ALL SIGNS SHALL BE SUPPLEMENTED WITH HIGH LEVEL WARNING DEVICES.
- ALL BARRICADES SHALL HAVE ONE OPERABLE FLASHING LIGHT FOR EACH 10 FEET OF BARRICADE, WITH A MINIMUM OF TWO LIGHTS PER TYPE III BARRICADE EXCEPT IN A TAPER WHERE ONLY THE FIRST TWO LIGHTS SHALL FLASH (TYPE "A") AND THE REMAINDER SHALL BE STEADY BURN (TYPE "C").
- TYPE "A" FLASHING WARNING LIGHTS SHALL BE USED TO MARK THE TYPE III BARRICADES, ROAD CLOSURES, AND ADVANCE DETOUR SIGNING AT NIGHT.
- DEVICE SPACING ON TAPERS AND TANGENTS SHALL BE ONE (1) X THE POSTED SPEED LIMIT (IN FEET). SPEED LIMIT:
- TWO (2) PORTABLE CHANGEABLE MESSAGE BOARD SIGNS WILL BE SUBSIDIARY TO 643(2) TRAFFIC MAINTENANCE. ANY ADDITIONAL PORTABLE CHANGEABLE MESSAGE BOARD SIGNS WILL BE PAID FOR UNDER 643(24) AT THE TRAFFIC CONTROL RATE SCHEDULE.
- TEMPORARY STRIPING SHALL BE EITHER TEMPORARY RAISED PAVEMENT MARKERS OR PREFORMED PAVEMENT MARKING TAPE.
- TRAFFIC CONTROL ZONES PROVIDING TWO-WAY TRAFFIC ON A ROAD REDUCED TO A SINGLE LANE REQUIRE A FLAGGER LOCATED AT EACH END.
- NO WORK OR IMPLEMENTATION OF TRAFFIC CONTROL SHALL OCCUR ON 8TH AVENUE ON DAYS SCHOOL IS IN SESSION AT EITHER NORTH POLE HIGH SCHOOL OR NORTH POLE MIDDLE SCHOOL. SEE FNSB SCHOOL DISTRICT CALENDAR FOR MORE INFORMATION.



HALF-WIDTH CLOSURE DETAIL

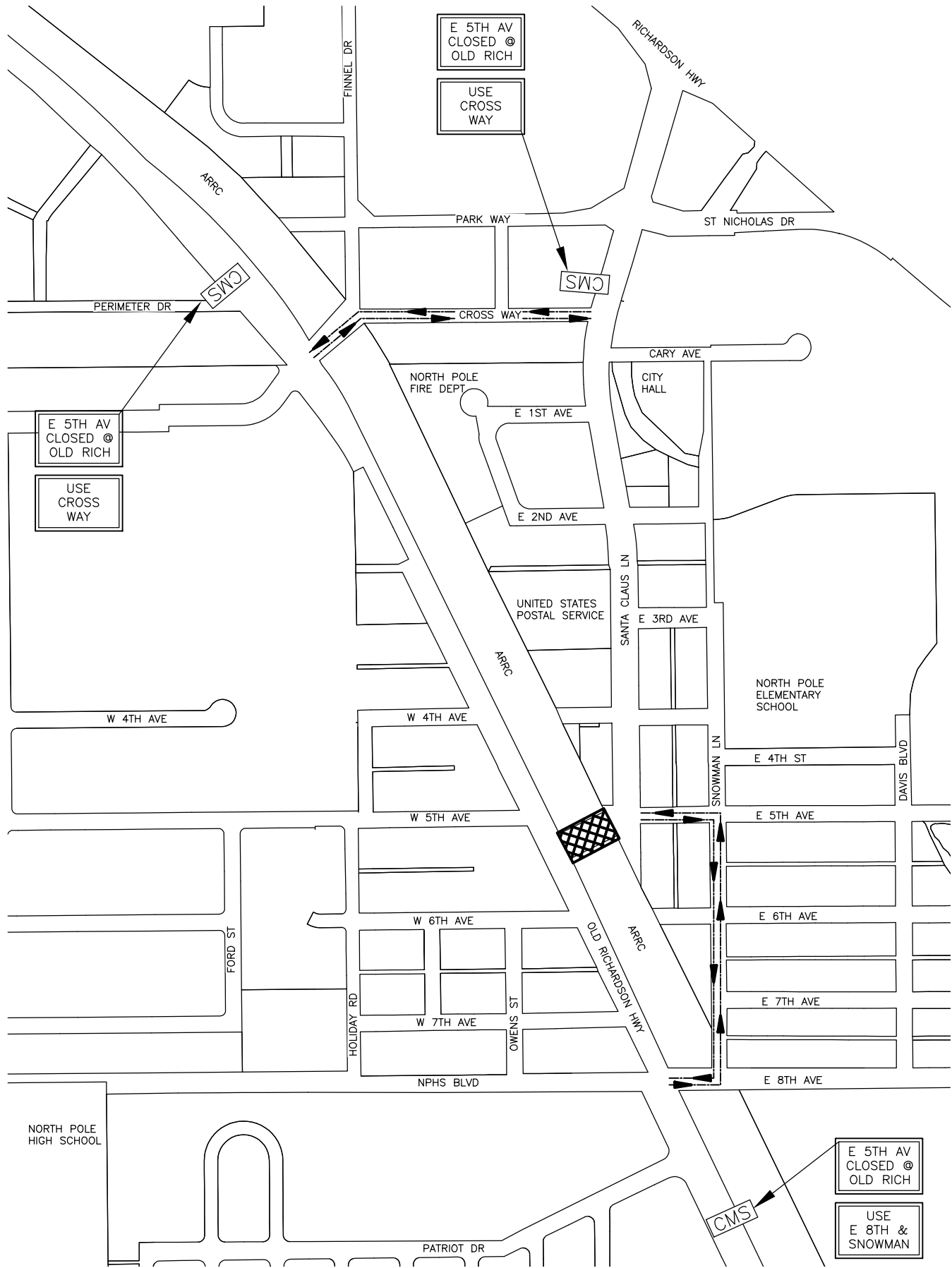
HALF-WIDTH CLOSURE NOTES:

- PROVIDE MINIMUM 10' LANE WIDTH AS MEASURED FROM NEAR FACE OF CHANNELIZING DEVICE TO NEAR FACE OF CHANNELIZING DEVICE OR CURB FACE.
- WHEN POSSIBLE, ROUTE PEDESTRIANS ON EXISTING OR NEWLY CONSTRUCTED SIDEWALK. OTHERWISE, DELINEATE TEMPORARY PEDESTRIAN ACCESS USING CHANNELIZING DEVICES PER MUTCD. TEMPORARY PEDESTRIAN ACCESS SHALL BE A MINIMUM 60" WIDTH AS MEASURED FROM NEAR FACE OF CHANNELIZING DEVICE TO NEAR FACE OF CHANNELIZING DEVICE WITH AN ADA-COMPLIANT SMOOTH SURFACE. IF A 60" PATH CANNOT BE CREATED OVER THE ENTIRE LENGTH, A 48' WALKWAY WITH A 60-BY-60" PAD EVERY 200 FEET SHOULD BE PROVIDED. PROVIDE ADA COMPLIANT TEMPORARY CURB RAMPS AT LOCATIONS WHERE PEDESTRIANS ARE ROUTED FROM THE SIDEWALK INTO THE STREET.
- SEE G SHEETS FOR RIGHT-OF-WAY LIMITS. LOCATE TEMPORARY TRAFFIC CONTROL WITHIN LIMITS OF RIGHT-OF-WAY.

TRAFFIC CONTROL PLAN

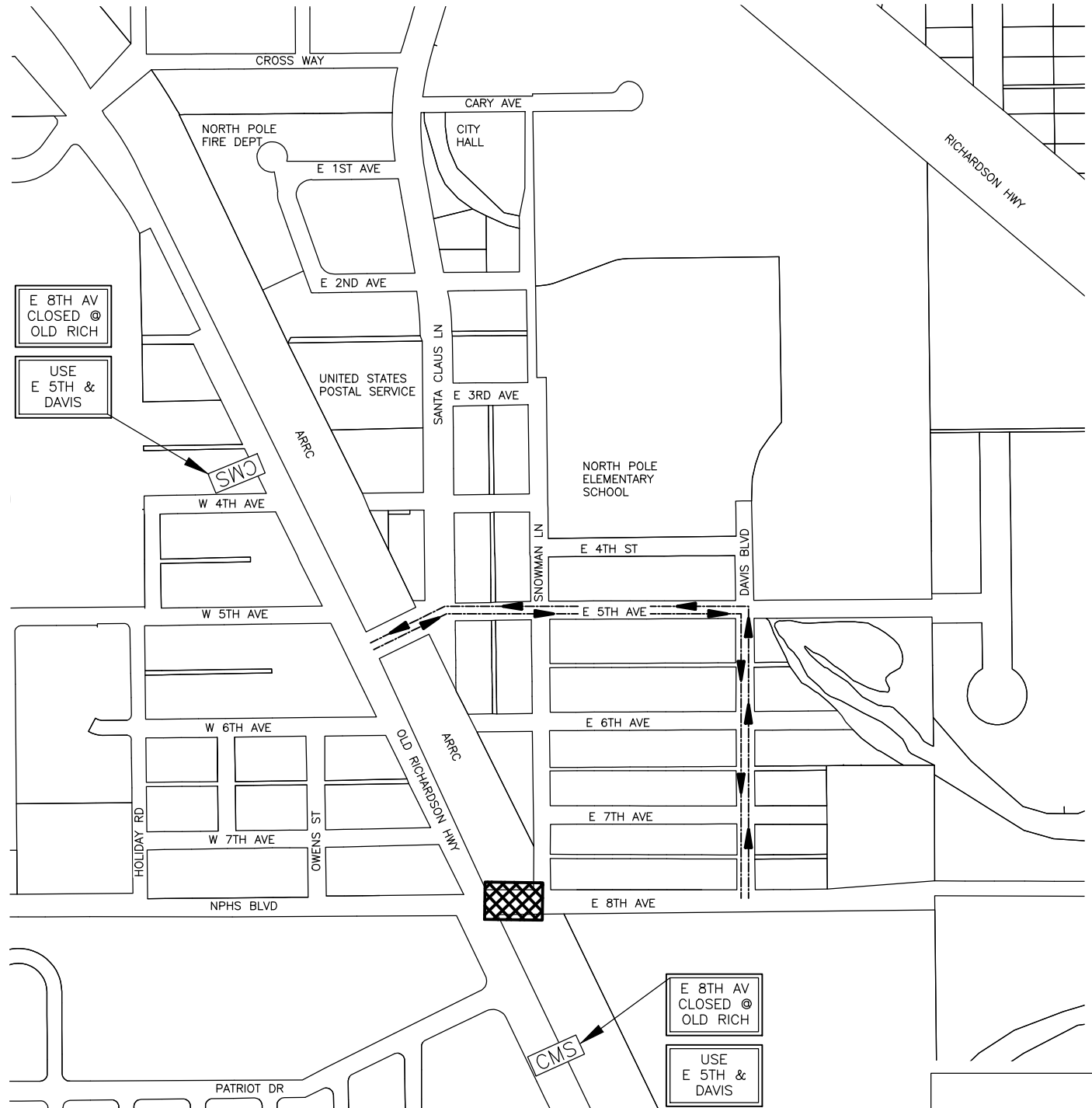
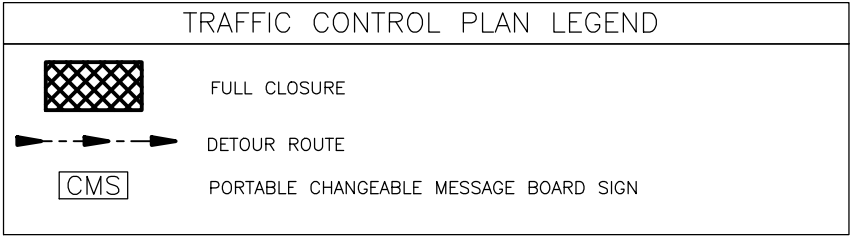
8/11/2020

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Z:\PROJECTS\00477_old rich intersections\DWGS\C\Sheets\00158_I_TrafficControl-T2 Tue, Aug/11/20 12:45am



E 5th AVE DETOUR ROUTING

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	T2	T3

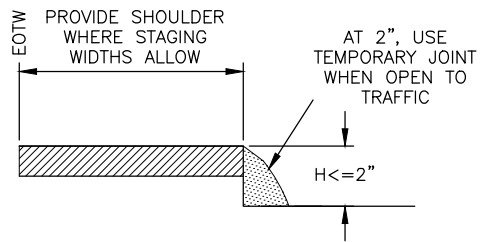


E 8th AVE DETOUR ROUTING

TRAFFIC CONTROL PLAN
DETOUR ROUTES

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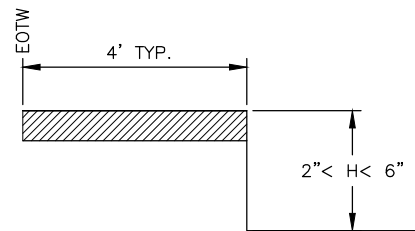
VERTICAL DROP-OFFS



CASE A

DROP-OFFS ≤ 2 INCHES
(PAVED SURFACES ONLY)

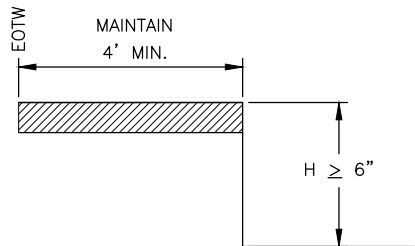
1. USE "UNEVEN LANES" (CW8-11) SIGNS FOR ALL DROP-OFFS IN BETWEEN TRAFFIC LANES.
2. LEAVE NO DROP-OFFS $> 1.5"$ IN THE TRAFFIC LANE OR ACTIVE WHEEL TRACK.



CASE B

$2" < \text{DROP-OFFS} < 6"$
(ALL ROADWAY SURFACES)

1. PLACE CONES OR CANDLES FOR DROP-OFFS ≥ 4 FEET AND ≤ 30 FEET FROM THE EOTW.
2. USE DRUMS OR TYPE II BARRICADES FOR DROP-OFFS < 4 FEET FROM THE EOTW.



CASE C

DROP-OFFS $\geq 6"$
(ALL ROADWAY SURFACES
AND ROADSIDE SLOPES)

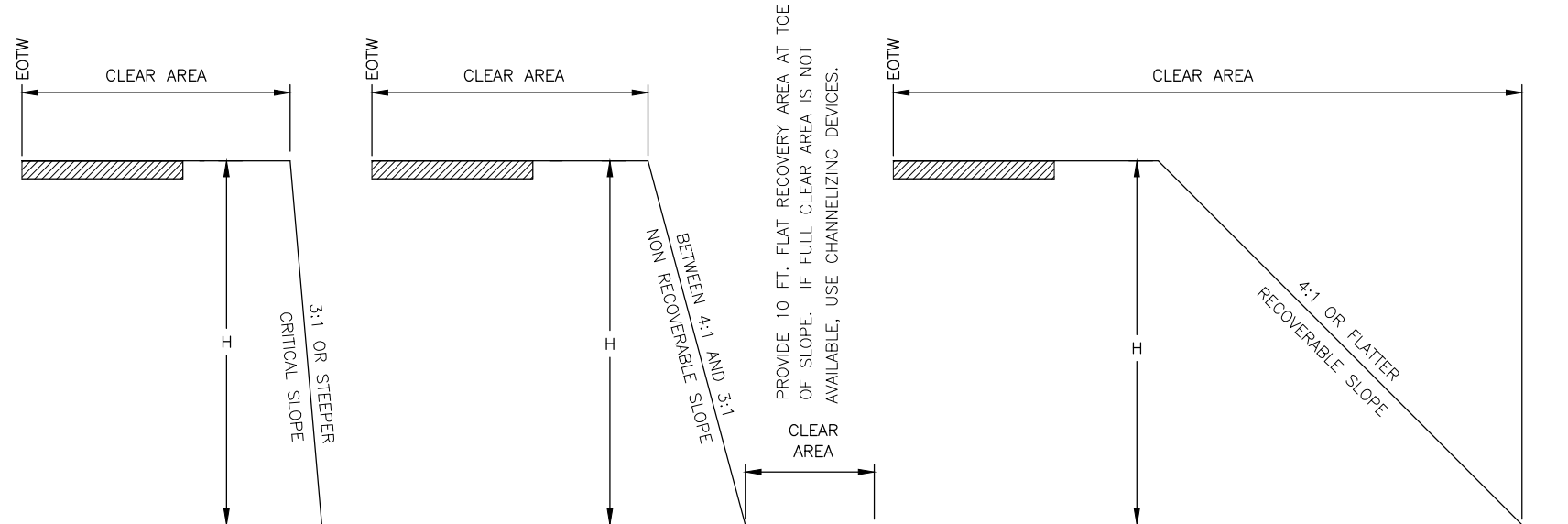
1. PLACE DRUMS OR TYPE II BARRICADES FOR DROP-OFFS $\leq 24"$ WITHIN THE CLEAR AREA.
2. PROVIDE PORTABLE CONCRETE BARRIER FOR DROP-OFFS $> 24"$ WITHIN 15 FEET OF THE EOTW. USE DRUMS OR TYPE II BARRICADES IF BEYOND 15 FEET.

FILL SLOPES

STEEPER THAN OR EQUAL TO 3:1

BETWEEN 4:1 AND 3:1

FLATTER THAN OR EQUAL TO 4:1



CLEAR AREA REQUIREMENTS

	LOW SPEED < = 35 MPH	INTERMEDIATE SPEED 40 MPH TO 45 MPH	HIGH SPEED \geq = 50 MPH
RURAL	15'	24'	30'
URBAN	10' DITCH SECTIONS, OR 2' BEHIND CURB	15' DITCH CONDITIONS, OR 2' BEHIND CURB	15' DITCH CONDITIONS, OR 2' BEHIND CURB

CHANNELIZING DEVICE REQUIREMENTS FOR SLOPES 3:1 OR STEEPER WITHIN THE CLEAR AREA

	H \leq 15'	H $>$ 15'
< 2000 VPD LOW VOLUME	CANDLES OR CONES	TYPE II BARRICADES OR DRUMS
> 2000 VPD	TYPE II BARRICADE OR DRUMS	PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL

TRAFFIC CONTROL NOTES:

1. USE THE EXISTING CROSS-SECTION (PRIOR TO CONSTRUCTION) AS A BASIS FOR DETERMINING WHEN CHANNELIZING DEVICES ARE NEEDED.
2. INSTALL CHANNELIZING DEVICES WHEN THE HORIZONTAL OR VERTICAL CURVATURE IS MADE MORE SEVERE.
3. INSTALL FLEXIBLE DELINEATORS WHEN ALL VEGETATION OVER 4 FEET HIGH IS CLEARED FROM FILL SLOPES THAT ARE 3:1 OR STEEPER IN THE CLEAR AREA.
4. USE PORTABLE CONCRETE BARRIER FOR WARRANTING CONDITIONS WHICH LAST LONGER THAN 3 DAYS. FOR CONDITIONS LASTING LESS THAN 3 DAYS, OTHER CHANNELIZING DEVICES MAY BE INSTALLED.
5. TERMINATE RUNS OF PORTABLE CONCRETE BARRIER USING THE FOLLOWING METHODS:
 - A) CONNECT TO A PORTABLE CRASH CUSHION, OR
 - B) PROVIDE A CONCRETE BARRIER WITH THRIE BEAM TRANSITION TO W-BEAM GUARDRAIL, TREATED WITH A PARALLEL TERMINAL (SEE SECTION 710).
 - C) FLARE THE ENDS OF THE PORTABLE CONCRETE BARRIER AWAY FROM THE ROADWAY AT A RATE OF 7:1 ON A COMPACTED SLOPE OF 6:1 OR FLATTER, OUTSIDE OF THE CLEAR AREA. INSTALL A SLOPING PORTABLE CONCRETE BARRIER END TREATMENT, OR
 - D) BURY IN THE BACKSLOPE.

6. TERMINATE THE RUNS OF TEMPORARY W-BEAM GUARDRAIL USING THE FOLLOWING METHODS:
 - A) PROVIDE A PARALLEL TERMINAL (SEE SECTION 710)
 - B) FLARE THE ENDS OF THE TEMPORARY GUARDRAIL AWAY FROM THE ROADWAY AT A RATE OF 6:1 ON A COMPACTED SLOPE OF 6:1 OR FLATTER OUTSIDE OF THE CLEAR AREA, TERMINATE WITH A STANDARD W-BEAM END SECTION, OR
 - C) BURY IN THE BACKSLOPE.

EQUIPMENT NOTES:

1. WHEN THERE IS ACTIVE, NONMOBILE CONSTRUCTION EQUIPMENT WITHIN THE CLEAR AREA, DELINEATE THE ROADSIDE WITH TRAFFIC CONES.
2. SEPARATE PROCEDURES ARE REQUIRED FOR MOBILE WORK ZONE OPERATIONS AND SHORT DURATION WORK OF LESS THAN 12 HOURS.

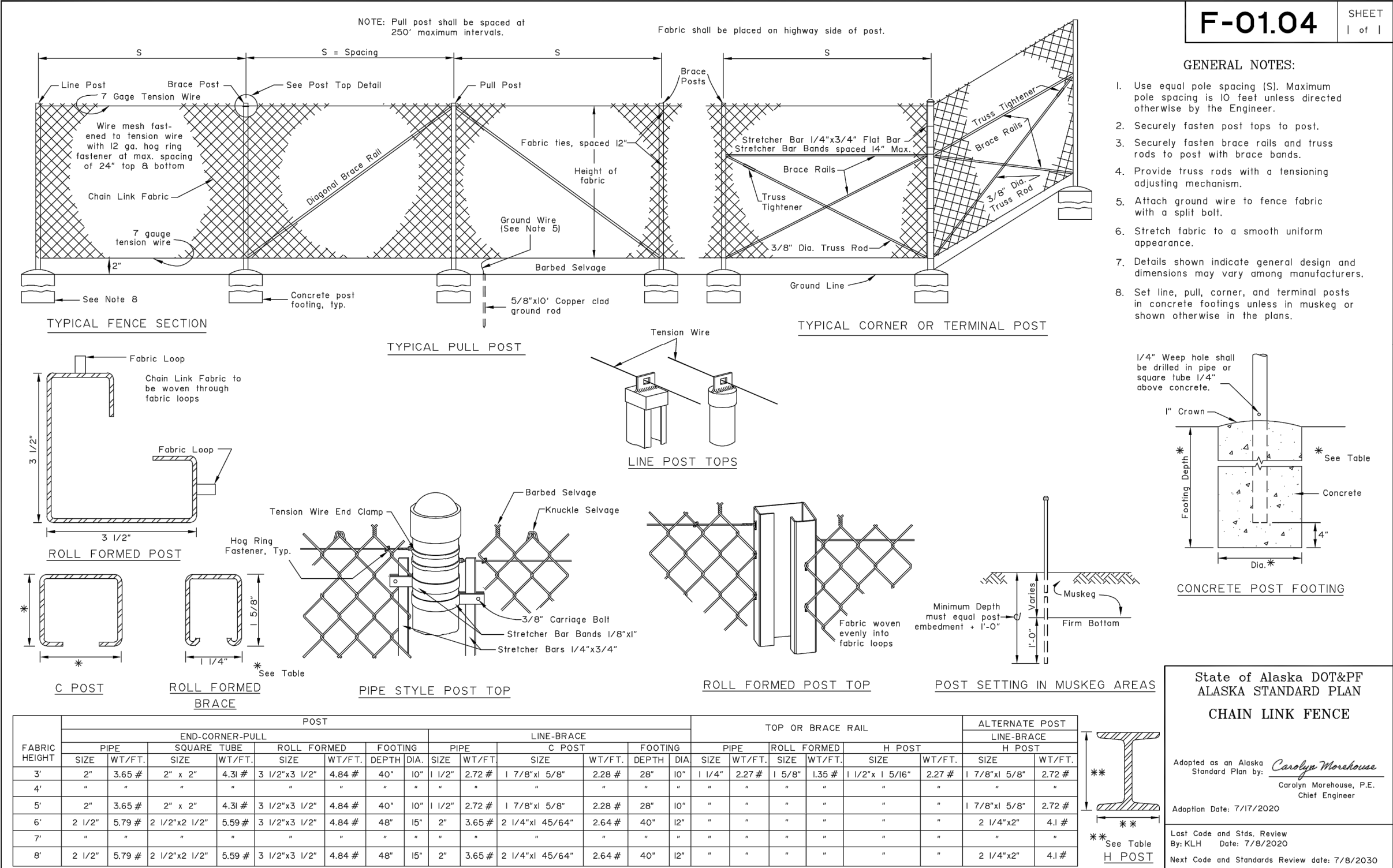
WINTER SHUTDOWN NOTES:

1. WHEN REQUIRED, USE CHANNELIZING DEVICES WHICH CAN BE MAINTAINED OVER WINTER.
2. NO CHANNELIZING DEVICES ARE REQUIRED IF:
 - A) CONSTRUCTION SLOPES ARE RECOVERABLE, AND
 - B) SLOPES ARE SMOOTH AND COMPACTED, AND
 - C) REQUIRED CLEAR AREA IS PROVIDED

TRAFFIC CONTROL PLAN
DROP OFF DETAILS



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	V1	V9

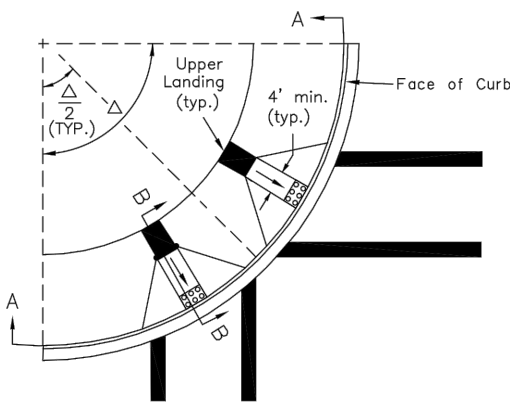


PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old rich intersections\DWGS\00158_V_I-22.11-V2 Tue, Aug/11/20 12:45am

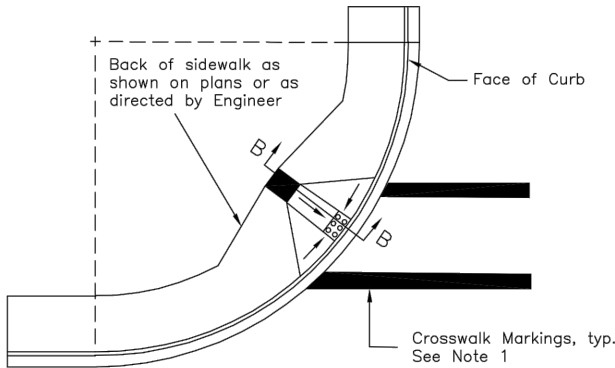
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	V2	V9

I-22.11


SHEET
1 of 1

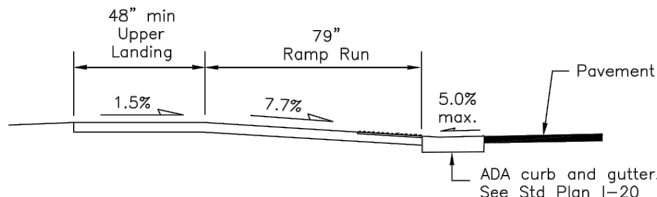


TWO CROSSING DIRECTIONS
At corner

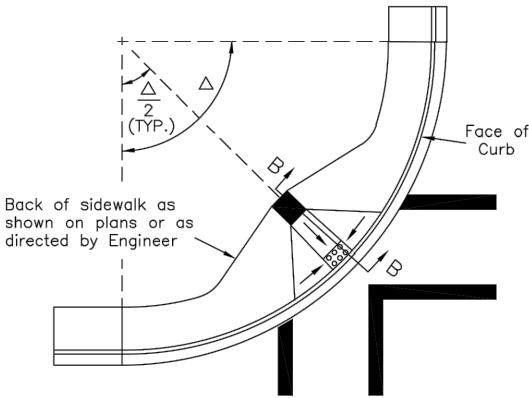


ONE CROSSING DIRECTION
At corner

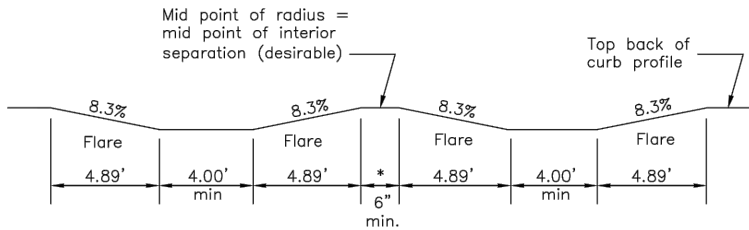
 = Detectable Warning Tile
See Note 9



SECTION B-B

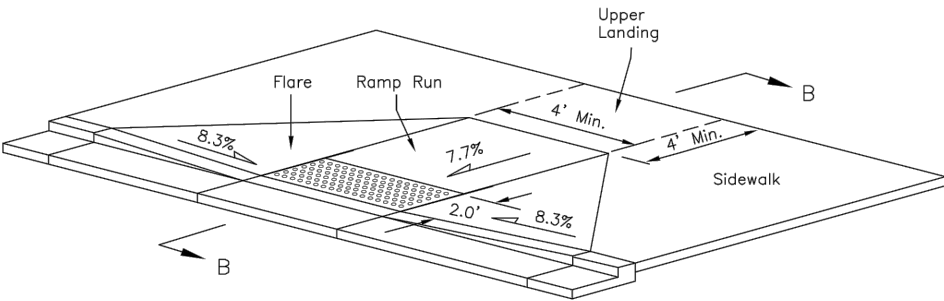


ONE RAMP - TWO DIRECTIONS
At corner



PROFILE A-A

* This dimension is adjustable depending on the curb radius and location of ramps



MID-BLOCK

Note: Drawing not to scale

CONSTRUCTION NOTES

1. See plans for ramp type at specific locations. See striping plans for crosswalk layouts.
2. Construct ramp runs perpendicular to the curb face.
3. Construct ramp runs, flares, and upper landings of concrete, regardless of whether the sidewalk is asphalt or concrete.
4. Ramp run and flare lengths are shown for a flat sidewalk grade. For other sidewalk grades, increase or decrease ramp and flare lengths to maintain the slopes shown.
5. Construct ramp slopes at a nominal 7.7% grade, or flatter. Ramps slopes may be increased to a maximum of 8.3% when site conditions warrant it. Ramp lengths should be increased to keep grades under the 8.3% maximum, but are not required to exceed 15.0 feet. The resulting ramp grade at a 15.0 foot ramp length is acceptable even if it exceeds 8.3%.
6. Construct flare slopes at 8.3% (measured parallel to the curb line adjacent to the top back of curb) or flatter, and sidewalk cross slopes at a nominal 1.5% (1.0% min., 2.0% max). Do not construct flare slopes steeper than 10.0%, or sidewalk cross slopes steeper than 2.0%.
7. Provide a coarse broomed finish running parallel to the curb on ramp runs and flares.
8. When approved by the Engineer, flares may be replaced with a curb at locations where access to the side of a ramp run is blocked by poles, utility boxes, other obstructions, or by a non-accessible surface such as a dirt planter strip. See Standard Plan I-20 for details.
9. Install 24" detectable warning tiles for the full width of the ramp. Provide tiles with truncated domes meeting Section 705.1 of the 2006 ADA Standards for Transportation Facilities.
10. Maximum cross slope on upper landings, measured in any direction, is 2.0%. Maximum cross slope on ramps is 2.0% measured perpendicular to the ramp run.
11. Provide 4" minimum thick concrete on ramps, flares and landings

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PERPENDICULAR
CURB RAMP

Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Sds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

I-22.11

STANDARD PLAN I-22.11

8/11/2020

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
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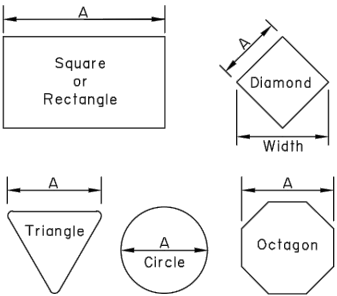
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	V3	V9

S-00.12

SHEET
1 of 1

GENERAL NOTES

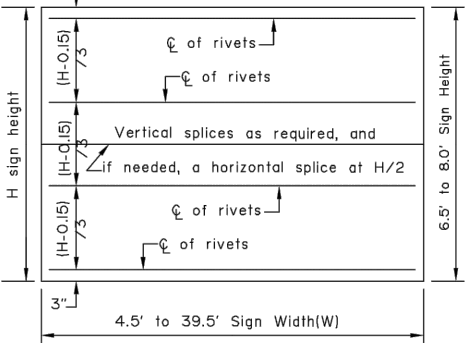
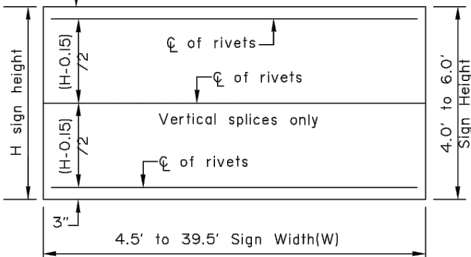
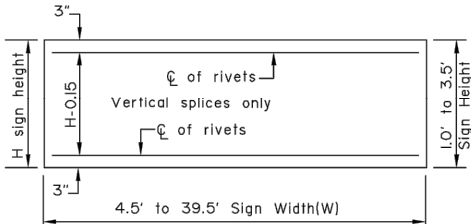
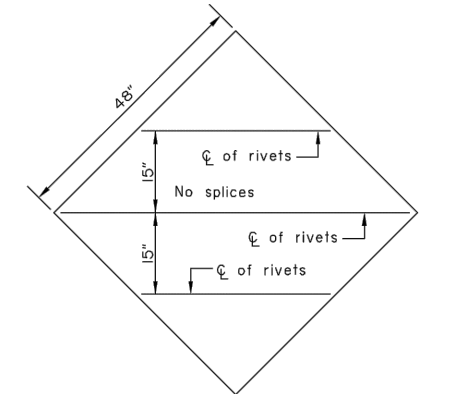
- See the standard specifications for the aluminum alloys that you may use for sign sheeting and wind framing members.
- Fabricate all signs from 0.125" thick aluminum sheeting.
- Sign fabricators may use alternates to the zee shaped framing member with approval of the engineer, if the frame manufacturer certifies their design equals or exceeds the strength of the zee shaped design.
- Install one piece wind framing members on all signs up to 23.5' wide. Use one splice in each wind frame on all signs wider than 23.5'. Locate splices at least 18" from all posts and panel edges. Stagger splices in adjacent framing members at least 8.0' apart.
- Attach wind framing members with rivets or with an engineer approved, double sided, high strength, adhesive tape. Clean and handle sheeting and framing members and apply tape in accordance with the tape manufacturer's written instructions. Install two rivets in both ends of each framing member.
- Use 3/16" diameter rivets conforming to aluminum alloy 6061-T6 for cold driven rivets, or aluminum alloy 6061-T43 for hot driven rivets.
- Sign fabricators may use sign panels extruded with integral framing with approval of the engineer, if the manufacturer certifies their design equals or exceeds the strength of the 0.125" thick panel with framing attached to it.
- Frame all signs taller than 8.0' with five wind framing members located (H-0.15)/4 spaces. If needed, make a horizontal splice at the middle wind frame.
- Do not use round pipes for sign supports.



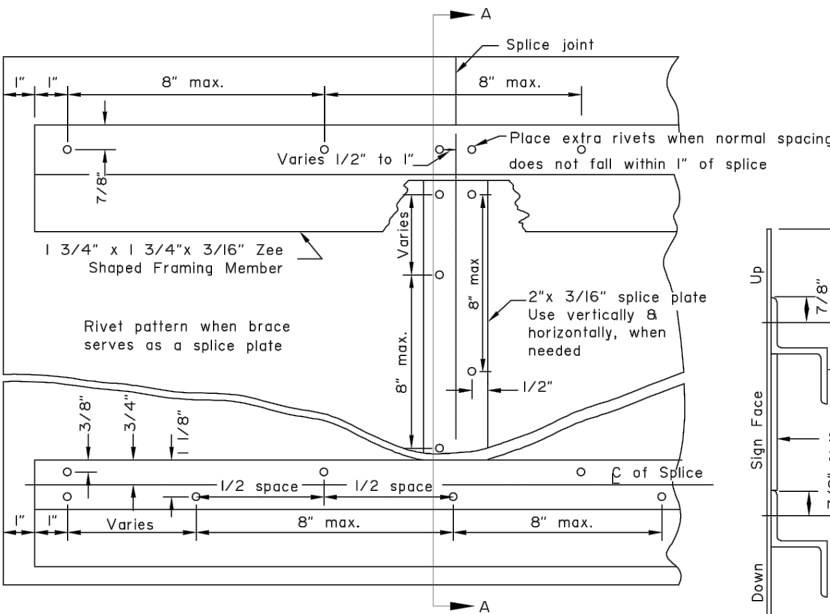
Maximum size unframed signs using 0.125" thick aluminum sheeting.	
Sign Shape	A
Squares, Shields, and Route Markers	48"
Rectangles	48"
Diamonds	48"
Triangles	48"
Rounds and Octagons	48"

Install wind framing on all signs that exceed the dimensions listed.

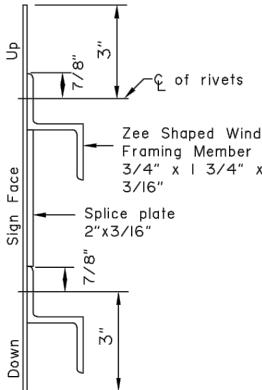
LIGHT SIGNS



WIND FRAMING LOCATIONS



RIVET DETAIL FOR ZEE SHAPED WIND FRAMING & SPLICE PLATE



SECTION A-A

State of Alaska DOT&PF
ALASKA STANDARD PLAN
SIGN FRAMING

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Sds. Review
By: WTH Date: 7/8/2020

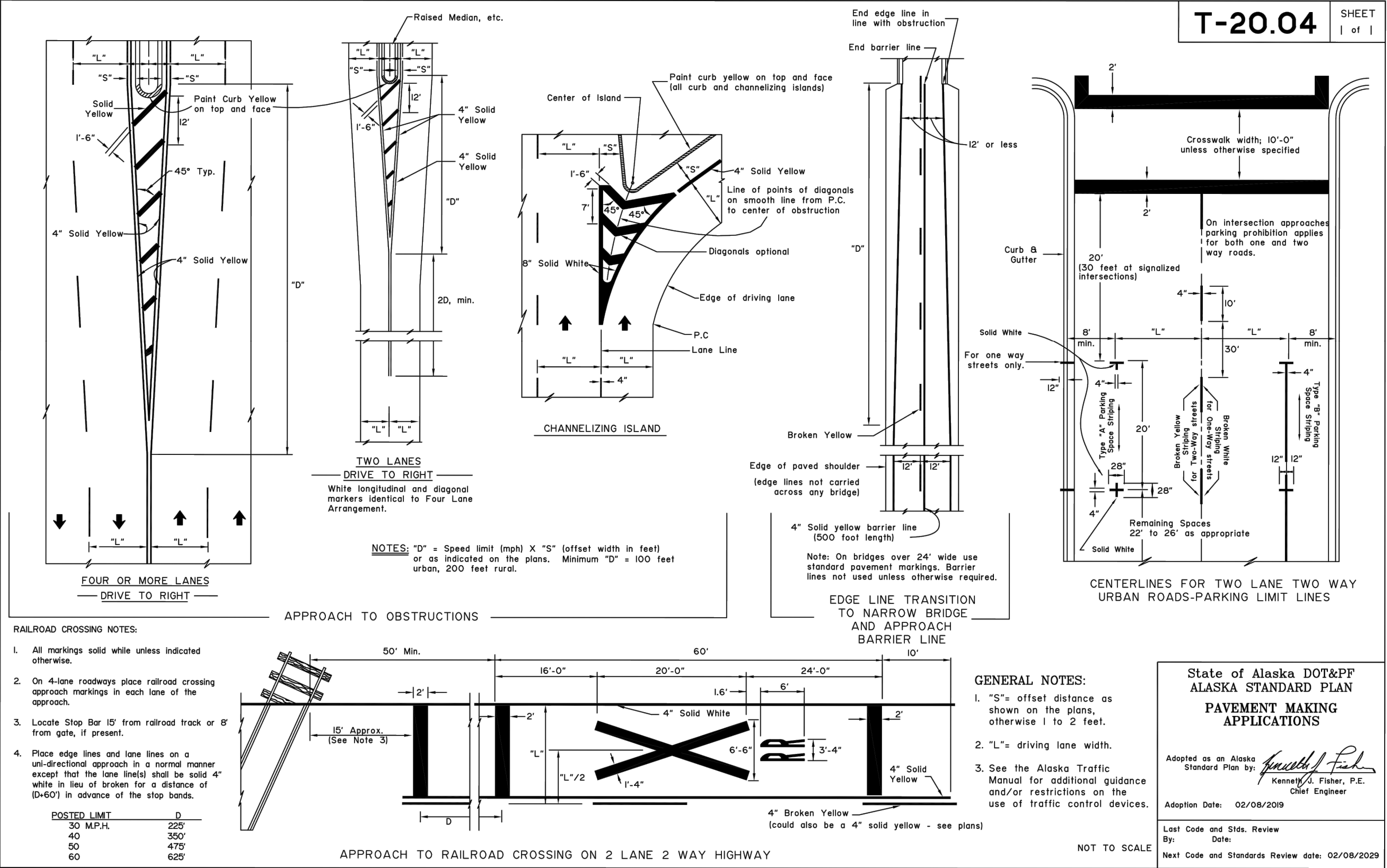
Next Code and Standards Review date: 7/8/2030

S-00.12

STANDARD PLAN S-00.12

8/11/2020

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	V6	V9

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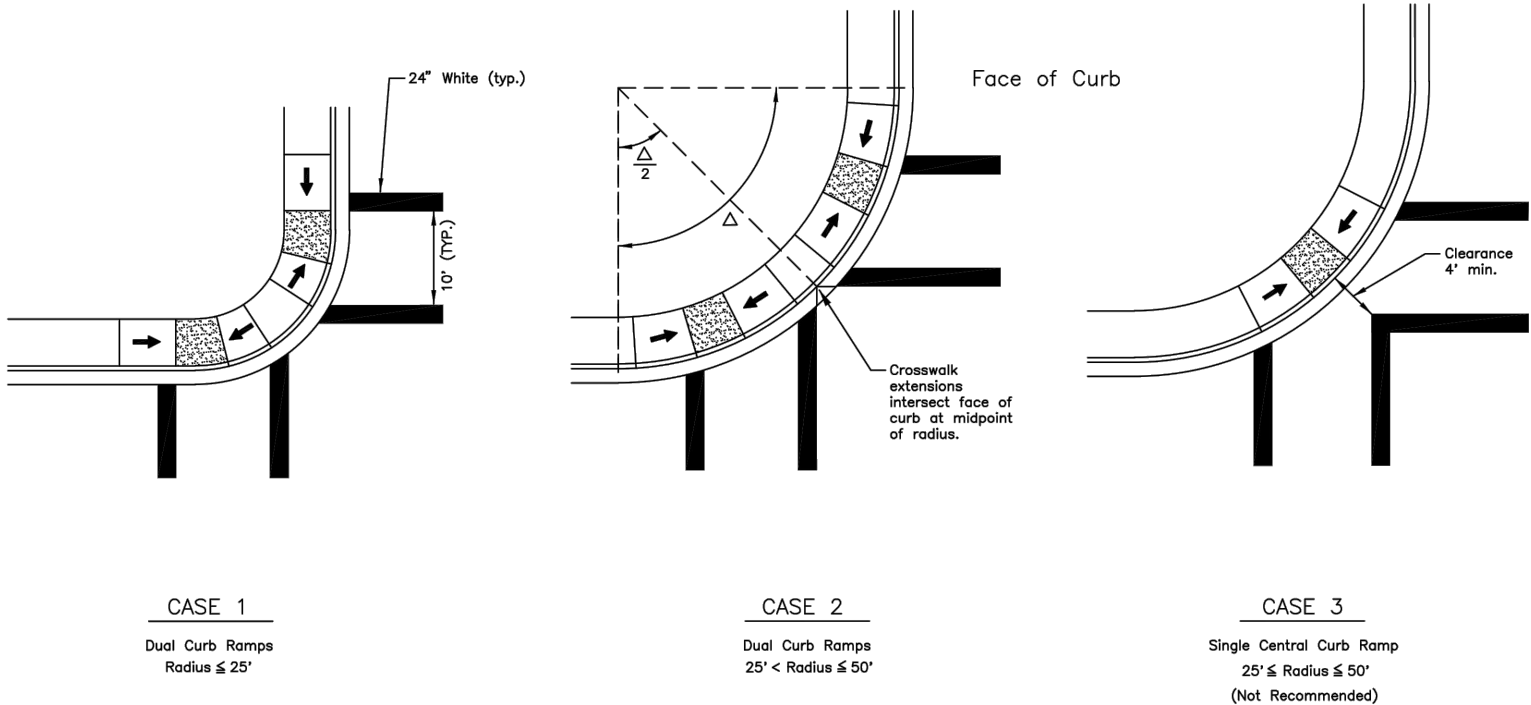
8/11/2020

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 Arctic Blvd, Suite 400 Anchorage, Alaska 99503 (907) 346-2373 CERT. OF AUTH. NO. 1102
Z:\PROJECTS\00477_old rich intersections\DWGS\00158_V_T-23.00-V8 Tue, Aug/11/20 12:46am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	V8	V9

T-23.01

SHEET
1 of 1



GENERAL NOTES

1. The crosswalk locations shown assume a 90-degree intersection – adjust as necessary on skewed intersections to ensure that crosswalk landings (for parallel curb ramps) or ramp runs (for perpendicular curb ramps) fall within the inner edges of crosswalk stripes. If Case 3 (not recommended) is used, the layout should also be adjusted to provide at least the minimum clearance while maximizing the offset.
2. If only one crosswalk connects with a curb radius, it should be located as if there were two connecting crosswalks.
3. These details apply to parallel (shown) as well as perpendicular curb ramps.
4. Case 3, the layout for a single central curb ramp, should be used only when installing two ramps is not feasible. It should not be used for radii under 25 feet. See plans for ramp layout at particular locations.
5. Radius is measured to the face of curb.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CROSSWALK LOCATION AT
SIGNALIZED INTERSECTIONS

Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030

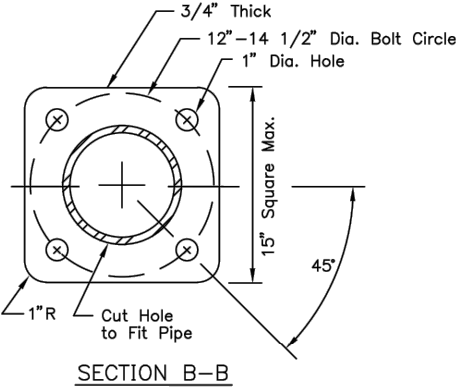
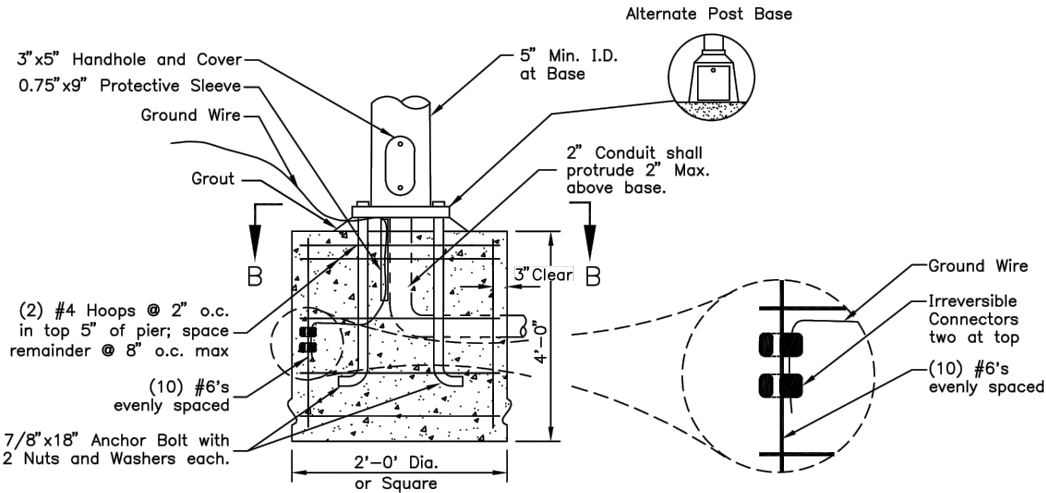
T-23.01

STANDARD PLAN T-23.01

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0620010/NFHWY00158	2020	V9	V9

T-31.01

SHEET
1 of 1



SIGNAL BASE POST TYPE "A"

GENERAL NOTES:

1. Install ground rod when continuous electrically secure system is not provided between controller and service ground.
2. Anchor bolts, nuts and washers shall be high strength steel and shall conform to A.S.T.M. A-325. Galvanizing of same shall conform to A.S.T.M. A-153.
3. Anchor bolts may be field cut and bent.
4. Damage to galvanized surfaces as a result of field drilling and or cutting shall be repaired in accordance with Federal Specifications TT-P-641.
5. Use Class A, B, or W concrete.
6. Reinforcing steel to conform to A.S.T.M. A-615 grade 60 (Fy=60 ksi).

State of Alaska DOT&PF
ALASKA STANDARD PLAN

TRAFFIC SIGNAL &
ACCESSORIES FOUNDATION

Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK,MJM Date: 7/8/2020

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T-31.01

STANDARD PLAN T-31.01